BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

2003/04 performance plan

2003/04 performance plan

Promoting and Protecting Public Health

Canadian Council on Health Services Accreditation
Conseil canadien d'agrément des services de santé

BC Centre for Dis
AN AGENCY OF THE PROVINCIAL HE
Our Vision
Healthy people in healthy communities is realized when science informs public health and public health informs science.

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BC Centre for Disease Control

AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

Provincial Health Services Authority

The British Columbia Centre for Disease Control (BCCDC) is one of seven provincial agencies directly managed and governed by the Provincial Health Services Authority (PHSA) which was created in December 2001 in order to ensure the deliver of quality, specialty and province-wide services to all British Columbians in an equitable and sustainable manner.

BCCDC embraces the following Vision, Mission, and Values of the Provincial Health Services Authority:

Vision

Province-wide solutions, Better Health

Mission

- To promote and deliver accessible quality health services for all British Columbians through an integrated health system. The PHSA
- Ensures the delivery of quality specialty and province-wide services
- Sets directions and develops province-wide standards.
- Allocates resources to support optimal health outcomes
- Measures, monitors, and reports on performance
- Fosters the creation of knowledge and innovation through research and teaching

Values

- Patients first
- Best value
- Improvements through knowledge
- Open to possibilities

The specific Goals, Strategies and Performance Objectives of the BC Centre for Disease Control and its respective programs and divisions support the following:

PHSA Goals and Objectives

- To administer and deliver high quality specialized health services that produce the expected results
- To administer and support province-wide health care programs and services in collaboration with the health authorities
- To foster and develop health promotion and prevention in the province
- To integrate and co-ordinate efforts within the PHSA and with provincial and community partners to develop appropriate research methodologies and systems, knowledge and innovation
- To integrate and co-ordinate efforts within the PHSA and with provincial and community partners to improve efficiency and service
- To create a sustainable, affordable public health care system through sound financial stewardship
- To respect and value our employees (as a vital component of the health care system) through recognition and support
- To commit to health reform and system performance improvements

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Our Mission

The Mission of the BC Centre for Disease Control and Prevention Society (BCCDC) is to provide leadership in public health through learning, innovation, action and partnerships for a healthier British Columbia.

Through affiliation with the University of British Columbia (UBC) and in partnership with the public health community, "Our Vision — healthy people in healthy communities" is realized when science informs public health and public health informs science.

- BCCDC provides the province and supports national initiatives with state of the art public health surveillance, detection, treatment, prevention and consultation services.
- BCCDC provides direct diagnostic and treatment services for people with diseases of public health importance.
- BCCDC provides analytical and policy support to all levels of government and health authorities for the protection and promotion of health.
- BCCDC is a UBC research and training Centre which assures that health practitioners and the public have ready access to the best people with the latest knowledge.
- BCCDC provides opportunities for scientist, health professionals and other partners to contribute their knowledge and experience in resolving the outstanding health challenges facing British Columbia.
- Ultimately, BCCDC envisions that, through the application of effective public health services, British Columbians will enjoy the benefits of health people living in healthy communities.

Our Future – Opportunities and Challenges

The SARS crisis, which occurred this year, has focussed public and political attention on the value of an effective public health capacity to protect the health of British Columbians. SARS reinforced the global nature of emerging disease threats and the tremendous human, social and economic cost of such events. British Columbia's effective response to SARS reinforced the importance of open communication, collaboration, and teamwork, both internally and externally. SARS demonstrated the contribution of science and the importance of knowledge, leadership, highly skilled health professionals, and a dedicated public health infrastructure well integrated into the broader health care system.

As the world reflects on the SARS experience, British Columbia, PHSA, and BCCDC's strengths are being recognized and we can have a degree of confidence that we are on the right track. We are however being challenged to build upon our solid foundation of provincial leadership, continue to develop a well coordinated provincial public health capacity, and join with the nation and other countries in building public health excellence. BCCDC in concert with PHSA is well positioned to initiate plans and collaborations for more effective development of population health prevention strategies. We can build upon our common interest in disease prevention, surveillance, epidemiology, health promotion and research. This affords us both opportunities and challenges.

Some of the key opportunities are:

- SARS Accelerated Vaccine Initiative (SAVI) — British Columbia sponsored initiative enabling research and scientific collaboration to develop a vaccine for SARS.
- David Naylor's report to the National Advisory Committee on SARS and Public Health will likely act as a catalyst for significant resource investment towards enhancing the nation's public health capacity.
- Emerging global collaborative to partner with British Columbia in building public health science and capacity. (Hong Kong and Guang Dong — China and Singapore).
- Provincial support for establishing the National Centre for Disease Control in Vancouver.
- Stronger alliance with University of British Columbia in addressing biotechnology, research, and academic opportunities.
- Public health leadership - BC Core Public Health Functions, new Public Health Act, prevention in primary and chronic care, improved access to public health expertise.
- Recognition of the importance of water and food safety, renewed interest in Environmental Health.
- New collaboratives for prevention strategies — within PHSA, research community, health authorities, other service providers and interest groups.

Our Future – Opportunities and Challenges

Some of the key challenges are:

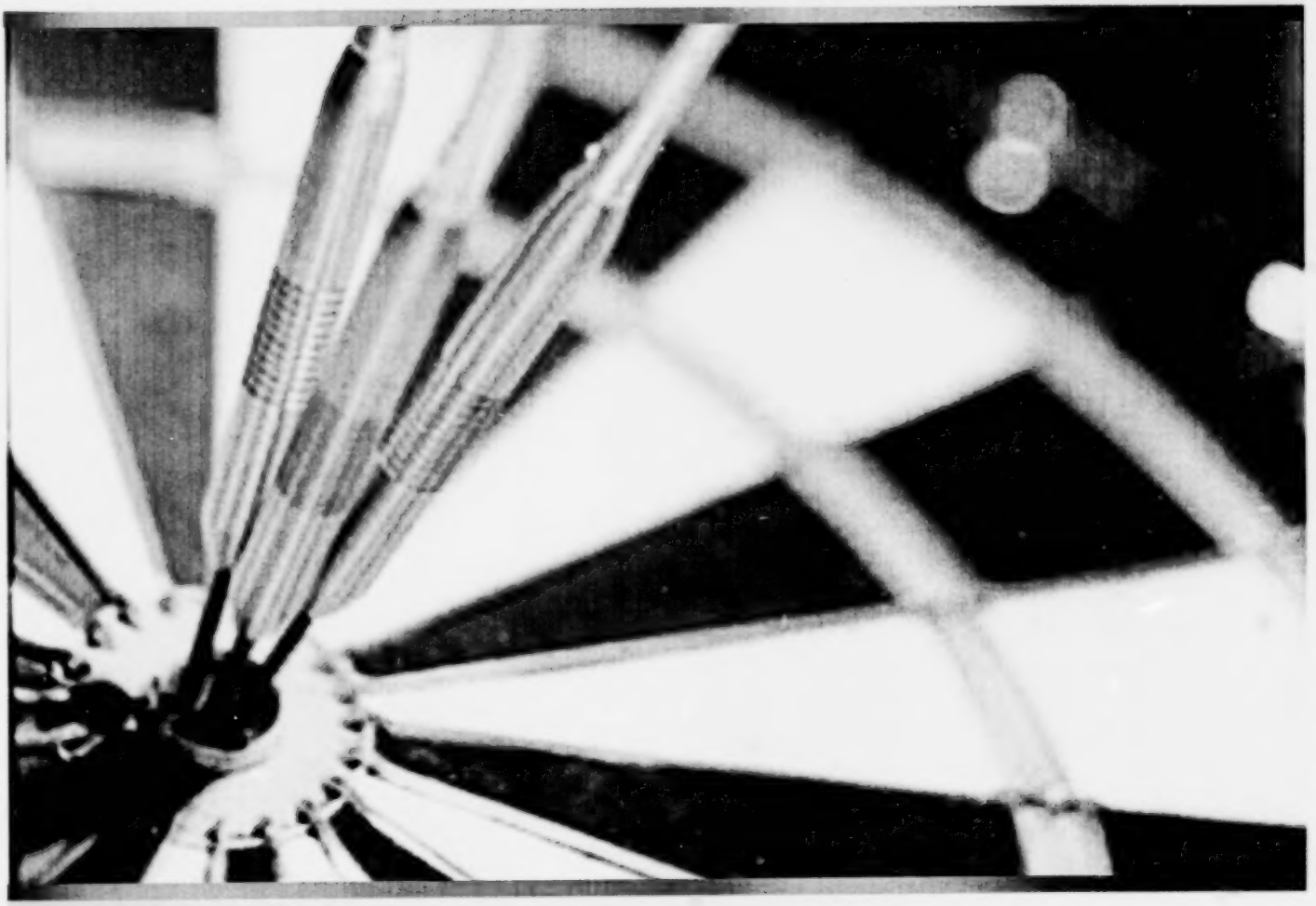
- Funding for prevention and related public health initiatives in the face of demographic and related fiscal pressures on the health system.
- Infrastructure for public health — especially surveillance and emergency response systems, human resources and space.
- Maintaining key resources and linkages such as laboratory capacity and clinical services in the face of health authority restructuring and consolidation.
- Maintaining a provincial customer focus and capacity in the face of fixed budgets and national and international demands for collaboration.

Strategic Direction

BCCDC's six strategic Goals continue to provide the broad strategic direction that supports the mission and values of PHSA. Our experience with SARS reinforces the resiliency and appropriateness of BCCDC's goals and strategies.

- Prevent, Control and Eliminate Communicable and Environmental Disease
- Detect and Respond to New Disease Threats
- Develop and Apply Advanced Informatics
- Create Knowledge Through Applied Research and Innovation
- Advance Public Health Excellence
- Provide Leadership and Create Partnerships

The objectives outlined in the plan identify opportunities to reinforce PHSA's leadership in the prevention of disease and strengthening public health capacity in British Columbia.



Achievement. Commitment.

Provincial Executive Director's Message

This Performance Plan comprises scores of new initiatives and more effective services within our mandated and expected resources.

Ron Zapp, Provincial Executive Director

It has been quite a year!

The Ministry of Health Planning and the Provincial Health Services Authority have asked to further our organizational model with the addition of Environmental Health Services. The integration of Food Protection Services, Radiation Protection Services and the Drug and Poison Information Centre present a significant opportunity for leadership and future synergies. Our corporate relationship in PHSA will strengthen us even more. The sophisticated advances of Financial, Human Resource and Information Technology teams for the Authority will ensure our partnership and productivity with the best service support practices in health care.

Similarly the progressive development of information management services, in support of a national network of integrated public health surveillance systems, furthers our ability to be at the forefront of public health needs for both the Province and the Nation.

When you think you have done it all, and you're prepared to attend to all emerging events, along comes an agent like SARS to test you. Proudly, we at the BC Centre for Disease Control can say we responded well and, in fact, effectively demonstrated the public health value of our service model to Canada.

Is SARS a "tipping point" for public health renewal? In the last decade as perceived need for public health support waned in the success of HIV management, we had minor public interest attributed to Walkerton's water problems and e-coli food contaminations. This year the advent of West Nile Virus, Mad Cow Disease and the lingering concern for a future of SARS requires that we must do something different about public health in our country if we are to achieve different results. BCCDC did enjoy an effective "management" response to SARS and received national recognition for our quality of service. How do we ensure that we have this same success in the future and help develop a national network of public health service providers to be even more effective? Herein, lies the challenge and opportunity for a restored and renewed public health system.

The year ahead will lever on the events of the last several months to further prepare and enhance our delivery of public health excellence for the improved health of our population. The 2010 Olympics may seem far off, but our opportunity resonates well with our desire for further excellence and innovation in our programming to support the "Best Games Ever".

Ron Zapp
Provincial Executive Director
July 2003

Director, Medical and Academic Affairs

UBC Centre for Disease Control remains a very active research Centre in the Faculty of Medicine with over $3 million in research grants and contract and 49 peer reviewed publications in the past year.

Dr. R.C Brunham, Director, Medical and Academic Affairs Director, UBC/CDC

What a year! The Centre is coming of age at a time of renewed and widespread awareness about the importance of Public Health. In many ways the BCCDC and the related Public Health Services in the Provincial Health Services Authority are recognized as unique Canadian innovations in health systems; innovations which are poised to become national models.

The BCCDC contributed to the remarkable success of the BC Public Health community in containing the spread of SARS following three separate introductions. Only a single case of secondary spread was documented. The close partnerships that exist among Public Health, Medical Microbiology / Infectious Disease and BCCDC facilitated rapid communication, superb diagnostic services and highly effective infection control practices. Within the BCCDC the crosswalk and cross talk among the Epidemiology, Laboratory, Clinical and Research divisions have been noted provincially and nationally as contributing to BC's success in containing SARS. Canada has an interest in rebuilding Public Health infrastructure and the BCCDC is likely to be a model site within a national network.

Other aspects of infectious disease prevention and control also exhibited remarkable progress during the past year. The infant and school based immunization programs for Hepatitis B has reduced to near zero acute Hepatitis B infection in children. The new childhood vaccines for group C meningococci and heptavalent conjugate pneumococci are provincially funded and being integrated into routine immunization practice for infants and children. Although these new vaccines are extraordinarily expensive by comparison with older vaccines they still represent public health prevention that "pays for itself".

Director, Medical and Academic Affairs

While much has been done in the past year, much remains to be done. Worrisome are fears that SARS may return. Anxious foresight is the watchword around SARS and BC needs to have in place a reliable surveillance system capable of detecting SARS (or pandemic influenza) at the earliest possible time. Extraordinary demands on the laboratory and clinical communities will be required if we are to mitigate the impact of resurgent SARS.

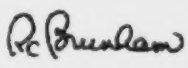
Syphilis, Chlamydia and HIV continue to pose important challenge to control efforts. It is not widely appreciated that Chlamydia is the commonest reported communicable disease in the province with nearly 8000 cases last year alone. Syphilis continues at historic high levels especially in vulnerable urban populations. Recently the predominant heterosexual transmission of syphilis has begun to shift with increasing cases now seen among men who have sex with men. New HIV infections (over 450 annually) continue to occur. Each new HIV infection must be considered a prevention failure. We remain in urgent need of new effective approaches to deal with STDs.

Active tuberculosis case rates continue to decline with most new cases occurring as reactivation disease in the "foreign-born". TB Services is actively evaluating new approaches to the detection and treatment of latent TB in the foreign born in order to have further impact on TB rates.

Up to two thirds of all premature mortality is preventable through the application of existing knowledge and public health programs. We are not yet fully applying what we know to be effective in prevention programs. This is dramatically true for our use of influenza and pneumococcal vaccines. We need to understand barriers to their acceptance especially among populations that transmit infection to at risk populations. Since cigarette smoking is a primary risk factor for invasive pneumococcal disease and influenza, prevention programs should be working more closely with tobacco cessation programs in order to achieve synergy in reducing pneumonia as a major cause of premature death.

Lastly, the Centre is now delivering a variety of new programs in the Environmental Health area. These include new programs in poison control, food and water safety, radiation protection and environmental toxicology. I want to extend a hearty welcome to these new programs, their leaders and staff. Participating in developing a comprehensive integrated Public Health Services for BC has been a corporate goal for the BCCDC and the roll out of programs in Environmental Health Services in an important milestone is that dream.

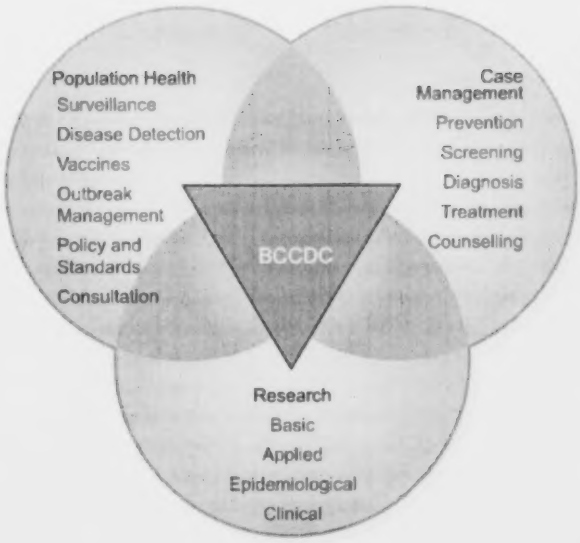
In conclusion, last year has been an eye-opening year. Many important goals have been achieved in public health and we have a clear view of area's requiring further work. I remain full of pride about our Centre and continue to treasure my opportunity to work with all of you in achieving the goals and objectives articulated in this Performance Plan (2003-4).



Dr. R C Brunham
Director, Medical and Academic Affairs
Director, UBC/CDC
July 2003

Who We Are

Promoting and protecting public health



BC Centre for Disease Control (BCCDC) is a component of the Provincial Health Services Authority that has responsibility to support a comprehensive program of communicable disease and environmental health prevention and control for the province of British Columbia. BCCDC provides a unique integration of public health programs resulting in highly effective service, while attracting and retaining the very best scientists and clinicians. BCCDC is accountable to the Provincial Health Services Authority, in support of the Minister of Health Services and the people of British Columbia.

Key specialized, yet integrated services within BCCDC operate to support the province's regional health authorities to provide the specialized services necessary to control communicable disease and promote environmental health.

BCCDC's main facility is located at 655 West 12th Avenue in Vancouver. It is augmented by street outreach nurse services and offices in the inner city of Vancouver, by an ambulatory tuberculosis clinic in New Westminster and by consultative clinics at various locations around the province. BCCDC collaborates with the University of British Columbia Centre for Disease Control (UBC CDC) in the advancement of public health policy, applied research and clinical teaching.

The following are the key communicable disease control programs and services at BCCDC:

Epidemiology Services is the provincial reporting centre for cases of communicable disease. This division tracks and evaluates their occurrence and develops and implements related prevention and control policies and programs.

Who We Are

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Vaccine and Pharmacy Services provides safe, efficient and cost-effective pharmaceutical care services for people being treated for tuberculosis and/or sexually transmitted diseases as well as people receiving vaccines. The division also monitors provincial utilization of antimicrobials for TB and STD.

Hepatitis Services is BCCDC's newest division, working since January 2000 to integrate viral hepatitis prevention and treatment.

Laboratory Services provides public health and microbiology reference services and focuses on issues like safe drinking water, molecular epidemiology and controlling food-borne disease agents.

STD/AIDS Control is the provincial reporting centre for sexually transmitted diseases and AIDS and coordinates province-wide efforts to control them. The division also operates an outpatient clinic and a prevention street program in Vancouver.

Tuberculosis Control is the provincial referral centre for TB prevention, control and treatment. Programs include outpatient clinics in New Westminster and Vancouver; a street outreach program in Vancouver's downtown eastside; field operations for other areas of the province; and services for on- and off-reserve aboriginal people.

Environmental Health Services at BCCDC includes the following programs and services:

Toxicology provides expert "state of the art" scientific consultation in Environmental Health and Toxicology in support of the Ministries of Health Planning and Health Services, Health Authorities and other stakeholders such as WCB, other government Ministries, municipalities individuals and community groups.

Food Protection Services provides leadership in developing strategies, legislation, policies and standards to ensure the safety of B.C.'s food supply.

Radiation Protection Services provides programs and services that help the people of British Columbia protect themselves and others from radiation hazards.

Drug and Poison Information Services assists health professionals and acute and long-term care facilities and provides the public with poison information

In addition to the specific programs identified above BCCDC also provides the following functions:

Education

BCCDC is involved in a wide range of education activities through its various divisions, including training health professionals and providing reliable and current public health information to the general public.

Research

Research at BCCDC reflects a commitment to innovation in public health services. Basic research focuses on vaccine discovery for flu, whooping cough and chlamydia, genetic characterization of new and emerging disease agents such as Cryptococcus and Norwalk-like virus and mathematical modeling of major communicable disease problems such as hepatitis C and syphilis. Applied research focuses on cost-effective evaluation of public health interventions such as drinking water and source protection, vaccination, disease outbreak recognition and control, and antimicrobial treatment of communicable diseases. BCCDC in partnership with developing nations is involved in CIDA sponsored global health research to prevent and control AIDS, STDs and TB. Research generates more than $3 million annually in contract and grant awards.

We Strive to Meet or Exceed Our Client's Expectations.

Corporate Performance

BCCDC's Mission and Vision

The Mission of the BC Centre for Disease Control and Prevention Society (BCCDC) is to provide leadership in public health through learning, innovation, action, and partnerships for a healthier British Columbia.

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Ultimately, BCCDC envisions that through the application of effective public health services, British Columbians will enjoy the benefits of healthy people living in healthy communities.

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal A - Elimination

Through the application of evidence based public health policies eliminate endemic transmission of communicable diseases - diphtheria, measles, mumps, polio, rubella, Haemophilus influenzae type b (Hib), hepatitis B and syphilis.

Strategy

- In partnership with Health Authorities, health care providers and consumers achieve 95% childhood vaccination rates at age 2 and 7 years. These programs to include: measles, mumps, rubella, diptheria, tetanus, polio, pertussis, Hib and hepatitis B.
- Introduce the new childhood immunization programs Meningococcal C conjugate for children aged 1 year and grade 6 students, and Pneumococcal conjugate vaccine for infants
- Through the use of best practice initiatives increase the number of communicable disease cases found and successfully treated.

Corporate Level Objectives and Performance Measures Related to Goal 1-A

2003 — 04 Objectives	Performance Measure
95% coverage for recommended vaccines for children by age 2 years and 7 years in order to achieve zero incidence of tetanus, diphtheria, polio, and Hib in children under 5 years, and 2.0 cases of hepatitis B per 100,000 population	Annual immunization rates Rates of vaccine preventable diseases Hepatitis B rates
Through the use of social network analysis, peer education and focused treatment and testing to decrease the syphilis growth rate to 0% in 2003/4	% Increase in new cases found and treated through field initiatives Syphilis case rates for BC

Corporate Performance

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal B - Control

Strategy

Through the application of evidence based public health policies achieve effective control for tuberculosis, HIV, hepatitis A and C, chlamydia, gonorrhea, influenza and pertussis.

- Through partnerships develop, implement, evaluate and continuously improve preventive and care management strategies in order to achieve best practice in the prevention, detection, control, and treatment of communicable diseases in the BC population.
- Use aggressive case finding and treatment methodologies for communicable diseases, which are not amenable to vaccine prevention but are possible to eradicate through other prevention and treatment methodologies.

Corporate Level Objectives and Performance Measures Related to Goal 1-B

2003 — 04 Objectives	Performance Measure
Decrease the reproductive health risk from bacterial and viral STDs	Ectopic pregnancy, PID and tubal infertility rates
Through targeting high risk populations e.g. substance users, aboriginal populations, use the best practices achieve rate reductions in the incidence in the following communicable diseases:	Number of IVDU harm reduction initiatives implemented by Health Authorities
	Chlamydia lab tests # and % positive
	Gonorrhea disease rates
• *HIV 5% decrease*	Hepatitis disease rates
• *Chlamydia 10% increase in lab tests and contain positive results to 1%*	Vaccination rates
	Lab reported case rates
• *Gonorrhea to 0% rate increase*	Latest TB Treament rates
	HIV Reports
• *Acute Hepatitis B 5% decrease*	
Through effective vaccination and control measures achieve reductions in influenza, (90% influenza immunization among residents of nursing homes and 80% among staff in long term care facilities)	
Develop and initiate a strategy for identifying new immigrants to BC who are at high risk of tuberculosis and increase treatment of latent TB infection by 5%	

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal C - Environment

Through the application of evidence based public health policies reduce the adverse impact of environmental hazards on human health.

Strategy

- With the transfer of the Environmental Health and Toxicology function from the Ministry of Health Planning, establish an Environmental Health service centre at BCCDC.
- Support the Health Authorities with environmental health expertise in order to prevent disease caused by adverse effects of the environment.
- Continue to support the policy and regulatory function of the Ministry of Health Planning.
- In conjunction with the WCB, explore the development of an occupational health capacity.
- Strengthen and develop academic and research ties with British Columbia post secondary institutions to enhance science related to environmental health in British Columbia.
- Develop surveillance and information management capacity related to environmental hazard identification, the impact of the environment on human health and the effectiveness of various prevention and abatement strategies.
- Identify opportunities for improved efficiency and effectiveness of environmental health services internal and external to BCCDC.

Corporate Level Objectives and Performance Measures Related to Goal 1-C

2003 — 04 Objectives	Performance Measure
Provide expert consultation as and when needed to Health Authorities concerning the full range of environmental health issues	Health Authority satisfaction survey
Provide policy advice and support to the Ministry of Health Planning and the Provincial Health Officer	Annual Performance Review with PHO and Ministry
Complete a joint assessment of the feasibility of establishing an occupational health capacity at BCCDC with WCB	Completion of Report to satisfaction of WCB and PHSA
Develop a cost-effective organization structure and related policies and procedures concerning the operation of an integrated environmental health service centre at BCCDC	Structure, policies and procedures communicated to Health Authorities. Business Plan endorsed by PHSA
Completion of a three year business plan for Environmental Health Service Centre at BCCDC	Proposal endorsed by PHSA and Health Authorities
Review and recommend structure(s) for maintaining stakeholder (customer) relations to ensure the Centre develops and meets users needs	Proposal endorsed by PHSA and Health Authorities

Corporate Performance

Goal Two:

Detect and Respond to New Disease Threats

Develop the institutional mechanisms to rapidly recognize and respond to emerging microbial and non-microbial disease threats to health, including water and food borne disease outbreaks, pandemic influenza, Bioterrorism, SARS, West Nile, and other new unknown emergent infectious disease agents.

Strategy

- Monitor worldwide patterns of emerging communicable disease threats.
- Strengthen surveillance capacity by :
  - *Initiating programs for surveillance of West Nile Virus*
  - *Improving existing tracking of vaccine associated adverse effects*
  - *Enhance surveillance to track serogroup specific invasive pneumococcal infections as the immunization program is initiated*
- Develop innovative laboratory techniques to molecularly fingerprint microorganisms of public health significance.
- Compare recently developed alert functions and apply them to information systems tracking disease and vaccine associated adverse effects
- Promote and support regional pandemic and related outbreak emergency planning and rapid response capability

Corporate Level Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Improve laboratory detection of new and emerging pathogens e.g. SARS, West Nile, gastroenteritis by establishing molecular detection capacity	# of diseases supported by molecular testing capacity
Establish West Nile Virus surveillance program monitoring Bird, Mosquito and Human infection	End of season West Nile Virus tracking report. # of CD results reported through PHIS
Improve response capability including Bioterrorism, threats in high risk populations, Pandemic flu plan, water safety, multi-drug resistant TB, and SARS	# of Regional pandemic and related emergency plans are established and supported, and outbreaks are investigated to the satisfaction of the PHO

Goal Two: (continued)

Detect and Respond to New Disease Threats

Strategy

- Pilot the approach of employing a broad scientific collaborative to develop novel tools to control emerge disease threats such as SARS.
- Compare recently developed alert functions and apply them to information systems tracking disease and vaccine associated adverse effects
- Promote and support regional pandemic and related outbreak emergency planning and rapid response capability.
- Ensure the maintenance and development of appropriate human resources to undertake effective surveillance, outbreak investigation and response coordination.
- Provide expert "state of the art" scientific consultation in Environmental Health and Toxicology in support of the Ministries of Health Planning and Health Services, Health Authorities, and other stakeholders such as WCB, and other government Ministries, municipalities, individuals and community groups.
- Develop and implement surveillance to detect SARS and other respiratory viral infections.

Corporate Level Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Develop advanced molecular fingerprinting techniques for surveillance and outbreak investigation	Spoligotyping for TB implemented Hepatitis C genotyping by DNA sequence implemented Camplobacter and Cryptosporidium fingerprinting method established
Produce a priority list of potential environmental health risks and assemble a working group to begin the development of priority risk management strategies	Inventory completed and endorsed by HOC and EHC
In conjunction with Michael Smith foundation and UBC, implement the SARS Accelerated Vaccine Initiative (SAVI)	Vaccine identified in six months

Corporate Performance

Goal Three:

Develop and Apply Advanced Informatics

Develop and apply advanced surveillance systems for alert and performance monitoring purposes in public health.

Strategy

- Enhancement of comprehensive provincial public health information systems (PHIS).
- Evaluate and improve utilization of the PHIS Outbreak Module and establish province wide reporting of GI outbreaks, vaccine associated adverse events, and rabies post exposure prophylaxis.
- Provide timely web based access to health information for consumers and health care providers.
- Integrated prevention and care information management capacity for communicable diseases pilot tested through Hepatitis initiative.
- Collaborate with Provincial Health Services Authority Executive Director of Population Health Surveillance and Disease Control Planning to develop new management practices to enhance population health server planning.
- Collaborate with Provincial Health Services Authority Quality and Access Committee to develop effective indicators.

Corporate Level Objectives and Performance Measures Related to Goal 3

2003 — 04 Objectives	Performance Measure
Support Health Authority implementation of new web based PHIS and operationalize the TB Module	% utilization of PHIS by Health Authorities and BCCDC
	% of Health Authorities accessing and satisfactorily utilizing the data warehouse and analytical capacity
Successfully pilot "Soul Access" data management capacity for STD/AIDSs	Participation on planning committees
Collaborate in Laboratory renewal initiatives to develop information management capacity within PHSA	% staff increase
	Quality assurance software acquired
Maintain Laboratory informatics capacity during Laboratory renewal process by increasing technical and software support	Endorsement of plan by inter-ministerial committee
Develop plan for Drinking Water informatics	
Evaluate and track 100% of the treatment the response to pegylated interferon/ribavirin treatment for hepatitis C patients	Report evaluating interim treatment outcomes

Goal Four:

Create Knowledge Through Applied Research and Innovation

Discover research findings of international significance that contribute to evidence based policy and practice that results in improved health for British Columbians.

Strategy

- Develop and implement a Research Plan that optimizes external funding and supports the strategic Vision, Mission, and Goals of BCCDC and the Provincial Health Services Authority.
- Create an environment that is supportive of research and facilitates effective collaboration with other scientific institutions and researchers in BC, Canada, and internationally.
- Ensure Ministry of Health Services and Planning, Health Authorities, public health users, clients and other stakeholders are able to benefit from, contribute to, and influence research priorities at BCCDC.
- Strengthen integration of research in the areas of surveillance, mathematical modeling, molecular microbiology, economics, and program evaluation in order to better serve evidence based public health policy and practice
- Foster and develop academic relation with UBC.
- Produce a phase one mathematical model that describes hep C virus dynamics in the population.
- Pilot the approach of employing research as a broad scientific collaborative to develop novel tools to control emergent disease threats such as SARS.

Corporate Level Objectives and Performance Measures Related to Goal 4

2003 — 04 Objectives	Performance Measure
Update Research Plan in consultation with PHSA, and end users, including Health Authorities, Ministries of Health Planning and Services, and clients and interest organizations	PHSA, HOC, Nursing, and Environmental Health Councils sign off of Research Plan
Increase number of new research initiatives by 10 %	% increase of research grants and contracts % increase in peer reviewed publications
Integration of Genomic Research into BCCDC through collaboration with BC Cancer and the relocation of components of the Genome Centre to BCCDC	Complete planned relocation by end of fiscal year
Secure CIHR/Health Canada Research Initiative on Hep C for an additional 5 years (2004-9)	Funding approved
Application of advanced mathematics and statistical analysis in two more Divisions of BCCDC	# of accepted mathematical models/peer reviews publications
Five year external review of UBC-CDC	Report to UBC-CDC partners and stakeholders
Functional mathematical model developed and operationalized producing treatment outcome information for hepatitis C	Model endorsed by Provincial Health Advisory Committee (PHAC)

Corporate Performance

Goal Five:

Advance Public Health Excellence

Promote and develop highly qualified persons to sustain and support state of the art public health services throughout the province.

Strategy

- Provide training to health providers, public, patients, clients and other stakeholders.
- Support continuing education of our existing staff with an emphasis on advanced informatics and Best Practices in communicable disease prevention and treatment.
- Collaborate with educational institutions throughout the province to support and attract future public health professionals.
- Recruit, retain and reward highly qualified staff.
- Develop a training and mentorship centre to support, patients, families, healthcare providers and students in the prevention, and treatment of hepatitis.

Corporate Level Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Increase training opportunities for health care providers by 10% , and provide better collaboration and knowledge exchange with public health providers throughout the province by increasing educational and training sessions provided by BCCDC to public health providers throughout the province	% increase CME updates /events % increase in # of divisional training events open to external stakeholders % increase in secondments and training event attendance
Increase staff training by 20%	% increase of trainees
Maintain BCCDC staff excellence by implementing client and staff surveys	# of surveys
In conjunction with PHSA develop a Training Plan	
Develop and open an integrated viral hepatitis training and mentorship program at Vancouver hospital	Centre opened and operational

Goal Six:

Provide Leadership and Create Partnerships

Provide provincial / national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada.

Strategy

- Promote BC's contribution to national public health infrastructure.
- Support development of national networks to achieve effective collaboration in addressing public health challenges.
- As a member of the Provincial Health Services Authority provide Health Authorities and practitioners with access to tertiary public health expertise, leadership, and support resources and champion evidence based public health practice throughout the province.
- Provide expert public health surveillance and policy advice to the Provincial Health Officer and related government ministries.
- Strengthen a population health approach to the prevention of disease and the promotion of health.
- Focus attention on the health status of aboriginal populations and engage stakeholders in efforts to improve health status.
- Provide leadership in the epidemiological understanding of disease and the effectiveness of population based intervention strategies.
- Work with the Provincial Health Officer in development of core public health functions and creation of new legislation to support public health.
- Partner with public and private sector to validate clinically new tests of public health importance
- Provide international public health leadership.

Corporate Level Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Continue to support PHSA in the development of a Population Health function	# of formal linkages
Continue to support the establishment of best practice guidelines in at least three disease areas (Latent TB, Hepatitis, Water Borne diseases)	# of Best Practice Guidelines produced
Provide national leadership by participating in and chairing national committees of public health significance	# of leadership positions of national and international significance.
Work with community leaders to enhance the recognition and support of BCCDC's contribution to improving the health of British Columbians	Funding of at least one leadership Chair at BCCDC Project implementation, annual Status Report
Improve aboriginal health by improving internal collaboration and coordination of services, and improving Federal funding	# of joint training and or/service initiatives between Hepatitis, STD/AIDS and TB Control and Epidemiology
Increase capacity in Vietnam for STD/HIV and AIDS control	

Corporate Performance

Goal Six: (continued)

Provide Leadership and Create Partnerships

Provide provincial / national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada.

Corporate Level Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Promotion of BC potential as a centre of national public health leadership and related research and development	% achievement of year three project objectives participation rate in national leadership committees # of briefing notes, policy analysis, and related support provided to Provincial Government in support of BC Public Health leadership potential Federal/Provincial/ Territorial Support for BC

Communicable Diseases

Communicable Diseases

Communicable diseases are caused by viruses, bacteria, parasites and fungi. Common modes of transmission are respiratory (measles, tuberculosis), sexual (HIV, chlamydia), blood borne (hepatitis B and C), fecal-oral (salmonella, shigella), vector-borne (Lyme disease, malaria) and waterborne (giardiasis, cryptosporidiosis).

As specified in schedules A and B of the Health Act, Communicable Disease Regulations and the Venereal Disease Act, cases and outbreaks of communicable diseases are reported to BCCDC by the Medical Health Officers in the province. BCCDC maintains, monitors and acts on the data on behalf of the Provincial Health Officer.

Provincial registries of active cases of tuberculosis, reportable cases of sexually transmitted diseases (STDs), meningitis, hantavirus pulmonary syndrome, leprosy and other reportable communicable diseases are maintained by BCCDC.

Epidemiology Services

Dr. David Patrick, Director, Epidemiology Services

Epidemiology Services investigates and evaluates communicable disease as it affects the population of British Columbia. It is the provincial monitoring centre for reportable cases of communicable disease.

Surveillance and other data on reportable and non-reportable cases of communicable disease are used by Epidemiology Services to evaluate trends in incidence of communicable disease, identify emerging populations at risk, to identify outbreaks and initiate control measures for reducing the spread of disease. Findings are communicated to public health officials, institutions and communities.

Vaccines for all provincially funded immunization programs are managed by Epidemiology Services and evaluated for effectiveness and adverse reactions. Newly licensed vaccines are evaluated prior to introduction to the publicly funded immunization program.

Epidemiology Services is also responsible for the development of policies and procedures for communicable disease control in the province and serves as a key source of consultation for others involved in communicable disease prevention, control and population based research.

In conjunction with the University of British Columbia (UBC) and Health Canada, Epidemiology Services is a training site for Federal Field Epidemiologists and UBC, trainees in postgraduate programs.

Epidemiology Services

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal A

Through the application of evidence-based public health policies, eliminate endemic transmission of communicable diseases, such as - diphtheria, measles, mumps, polio, rubella, Haemophilus influenzae type b (Hib), hepatitis B and syphilis

Epidemiology will specifically:

Work toward reductions in invasive meningococcal group C disease and invasive pneumococcal diseases in children and pertussis among 10-14 year olds

Sub Goal B

Through the application of evidence based public health policies, achieve effective control for diseases such as, tuberculosis, HIV, hepatitis A and C, chlamydia, gonorrhea, influenza and pertussis

Please see above for approach to influenza, pertussis and other vaccine preventable diseases

Sub Goal C

Through the application of evidence based public health policies, reduce the adverse impact of environmental hazards on human health

Strategy

- In partnership with Health Authorities, health care providers and consumers provide childhood vaccination. These programs to include evaluation of coverage for: measles, mumps, rubella, diphtheria, tetanus, polio, pertussis, Hib and hepatitis B
- Influenza immunization for residents of long term care facilities.
- Influenza immunization for staff of long term care facilities and acute care hospitals
- Review and improve upon current methods for assessment of immunization coverage
- Roll out and provide promotional campaigns for new immunization programs
  - *Pneumococcal conjugate vaccine for infants*
  - *Meningococcal C conjugate vaccine for children aged 1 year and grade 6 students*
- Improve quality of nursing practices for immunization
- Maintain affordable vaccine prices through bulk purchase of vaccines for publicly funded programs
- Report progress towards enhancing surveillance for vaccine safety and improvement of vaccine registries
- Secure funding for carrying out a coverage survey to supplement immunization coverage assessment possible through the PHIS immunization registry
- Develop an immunization recertification program for public health nurses
- Collaborate with BCCDC Environmental Health function and PHSA Population Health Division to identify opportunities for integrating disease epidemiological information across the BC population.

Epidemiology Objectives and Performance Measures Related to Goal 1 A

2003 — 04 Objectives	Performance Measure
95% childhood vaccination rates at age 2 and 7 years	Immunization rates
90% influenza immunization of residents in long term care facilities	Immunization rates
Develop and implement new immunization program for pneumoccocal conjugate vaccine in infants in all Health Authorities	Immunization rates by Health Authority
Develop and implement new immunization program for Meningococcal C conjugate vaccine for children aged 1 year and grade 6 students	Immunization rates by Health Authority
Reduce pertussis among 10-14 year olds through the introduction of a preadolescent booster dose of TdaP (pending approval by the Ministry)	Pertussis rates / % increase / decrease

Epidemiology Objectives and Performance Measures Related to Goals 1 B and C

2003 — 04 Objectives	Performance Measure
Preliminary study of the benefits of the development of an integrated epidemiological surveillance function across communicable and non-communicable diseases in the BC population in order to better monitor and understand preventable diseases in the BC Population	Report to PHSA

Note: Immunization rates are dependent upon programming at the Health Authority level.

Epidemiology Services

Goal Two:

Detect and Respond to New Disease Threats

Enhance and apply mechanisms to rapidly recognize and respond to emerging microbial and non-microbial disease threats to human health, including water and food borne disease outbreaks, pandemic influenza, bioterrorism, SARS, West Nile Virus and Norovirus, and other new emergent infectious disease agents

Strategy

- Maintain the human resources and expertise required to fully investigate outbreaks of communicable disease
- Strengthen surveillance capacity by:
  - *initiating programs for surveillance of West Nile Virus*
  - *improving existing tracking of vaccine associated adverse effects*
  - *enhance surveillance to track serogroup specific invasive pneumococcal infections as the immunization program is initiated*
- Compare recently developed communicable disease alert functions and apply them to information systems tracking disease and vaccine associated adverse events
- Promote and support regional pandemic and related outbreak emergency planning and rapid response capability
- Pilot the approach of employing a broad scientific collaborative to develop novel tools to control emergent disease threats such as SARS

Epidemiology Objectives and Performance Measures Related to Goals 2

2003 — 04 Objectives	Performance Measure
Tracking and reporting system developed for West Nile Virus in birds, mosquitoes, and humans established	Tracking system providing advanced warning of human risk virus exposure.
Invasive pneumococcal disease tracked and analyzed	Inclusion of serogroup data on invasive pneumococcal disease reported in next annual CD Report
Development of a system whereby all CD and vaccine adverse event data are routinely reviewed using an automated alert system	System established providing comprehensive adverse event information for all Health Authorities
Provision to regions of templates they will need to complete regional and local pandemic and bioterrorism preparedness planning by March 2004	Templates adopted and utilized by all Health Authorities
Establish a scientific collaborative to address SARS	At least two relevant publications are produced by the collaborative which are accepted or published by peer reviewed journals
Maintenance of critical FTE allotments in epidemiology	Year over year staffing ratio

Goal Three:

Develop and Apply Advanced Informatics

Develop and apply advanced surveillance systems for alert and performance monitoring purposes in public health

Strategy

- Follow through with PHIS implementation and strengthen surveillance capacity
- Secure historic vaccine associated adverse event data reported in British Columbia from Health Canada for trend analysis and testing of aberration detection methods
- Provide timely web based access to disease information for the public, consumers and health care providers
- Public Health Laboratories networks linking private and public laboratories to case data via PHIS
- Improve the recording of vaccine administration at point of service
- Expand the PHIS Surveillance Working Group membership to include HSDA representation

Epidemiology Objectives and Performance Measures Related to Goals 3

2003 — 04 Objectives	Performance Measure
Evaluate and improve utilization of the PHIS Outbreak Module and establish province wide reporting of GI outbreaks, vaccine associated adverse events, and rabies post-exposure prophylaxis	Number of Outbreaks reported through iPHIS
Reduction of reporting delay from date of laboratory confirmation to date of reporting in iPHIS	Average time taken to report laboratory confirmation into iPHIS system
Pilot the use of bar-coding technology for capturing vaccine administration at the point of service	Electronic reporting of vaccine associated adverse events achieved and bar-code pilot evaluated

Epidemiology Services

Goal Four:

Create Knowledge Through Applied Research and Innovation

Discover research findings of international significance that contribute to evidence based policy and practice that results in improved health for British Columbians

Strategy

- Advance BCCDC Research Plan and integrate with the Provincial Health Services Authority research strategy
- Create an environment that is supportive of research and facilitates effective collaboration with other scientific institutions and researchers in BC, Canada, and internationally
- Ensure Ministry of Health Services and Planning, Health Authorities, public health users, clients and other stakeholders are able to benefit from, contribute to, and influence research priorities at BCCDC
- Strengthen integration of research in the areas of surveillance, mathematical modeling, molecular microbiology, economics, and program evaluation in order to better serve evidence based public health policy and practice

Epidemiology Objectives and Performance Measures Related to Goals 4

2003 — 04 Objectives	Performance Measure
10 peer reviewed publications from epidemiology services	# of publications
$0.5 M in grant or contract funded research	$ received
2 graduate students associated with group	# of graduate students engaged
Provision of 2 courses to UBC	# of courses provided

Goal Five:

Advance Public Health Excellence

Attract, develop and retain highly qualified persons to sustain and support state of the art public health services throughout the province

Strategy

- Provide training to health providers, Health Authorities, public, patients, clients and other stakeholders
- Support continuing education of our existing staff
- Collaborate with educational institutions throughout the province to support and attract future public health professionals and support teaching of undergraduate and graduate health professionals
- Recruit, retain and reward highly qualified staff
- Develop opportunities for all staff to advance their career and contribute to the leadership needs of BCCDC
- Develop communications function to promote public health excellence and knowledge in the health care system and general public

Epidemiology Objectives and Performance Measures Related to Goals 5

2003 — 04 Objectives	Performance Measure
Provide at least 15 continuing education sessions to health care workers	# of continuing education sessions
Each professional staff member to attend at least one academic meeting per annum	inventory of professional staff attendance at academic meetings
2 or more regular staff members working (part-time) toward further post-graduate training	# of staff working on post-graduate training
Find solutions to collective bargaining or HEABC adjustments that will make it easier to recruit and retain highly qualified staff	H.R. policy / and related recruitment and retention capacity to retain appropriately highly qualified staff in place and endorsed by PHSA

Epidemiology Services

Goal Six:

Provide Leadership and Create Partnerships

Provide provincial / national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada

Strategy

- Promote BC's contribution to national public health infrastructure
- Support development of national networks to achieve effective collaboration in addressing public health challenges
- Provide expert public health surveillance and policy advice to the Provincial Health Officer and related government ministries
- Focus attention on the health status of aboriginal populations and engage stakeholders in efforts to improve health status
- Provide leadership in the epidemiological understanding of disease and the effectiveness of population based intervention strategies
- Work with the Provincial Health Officer in development of core public health functions and creation of new legislation to support public health

Epidemiology Objectives and Performance Measures Related to Goals 6

2003 — 04 Objectives	Performance Measure
Epidemiology staff to have membership on at least four national or international committees	# of staff participation rate on National Committees
Epidemiology staff to chair at least 2 national or international leadership committees	3 staff chairing national or international leadership committees
Participate in forming new national Epidemiology and Public Health Network committees	Active membership on Epidemiology and Public Health Network committee
Produce Statistical Reports on CD's within the Aboriginal Population	Statistical Report on Aboriginal CD's completed

Vaccine and Pharmacy Services

Dr. Fawziah Marra, Vaccine & Pharmacy Services

The Provincial Public Health Pharmacy is dedicated to providing high-quality pharmaceutical services that result in optimal patient outcomes in an environment that encourages excellence, teamwork, innovation and continuous improvement.

Mission

The Provincial Pharmacy is dedicated to providing high-quality pharmaceutical services that result in optimal client outcomes in an environment that encourages excellence, teamwork, innovation and continuous improvement. Our goal is to provide safe, cost-effective and efficient pharmaceutical care, one that contributes towards positive client outcomes in specific disease states facilitated by the BC Centre for Disease Control; these include tuberculosis (TB), sexually transmitted diseases (STD's), and biologicals.

Services

Pharmacists work directly with physicians and other healthcare providers to provide pharmaceutical care. They are involved with research projects and with the education of patients, pharmacy students/interns and other healthcare providers. Our Pharmacy technicians play a fundamental role in employing invaluable technological tools such as the automated filling equipment and the BDM¤ pharmacy information system that are used in managing inventory and distribution. The pharmacy software system also allows our team to maintain client profiles and perform drug evaluations that determine clinical appropriateness. We employ an automated dispensing system for the most routinely prescribed medications. It is a safe and effective way to streamline processes and to minimize dispensing errors by filling medications categorically and in systematic order.

Vaccine and Pharmacy Services

Tuberculosis

Medications for TB are dispensed throughout the Province of BC and the Yukon Territory under the mandate outlined by TB Control. Medications are distributed to patients via chest clinics, health units and affiliated facilities. A patient requiring treatment is provided medications in 30-day-supply intervals so that compliance and adverse reactions may be monitored. The pharmacist reviews the client's drug profile against the prescribed TB medications and checks for appropriate dosing, adverse reactions, and drug interactions. Clients with latent tuberculosis are counseled on their drug therapies by our pharmacists who will also reinforce this need for treatment compliance.

Sexually Transmitted Diseases

Medication units for STD's are supplied to health units, physicians' offices and specialized care service facilities throughout the Province. Each drug is packaged and supplied in a unit appropriate for a course of treatment under the Canadian STD Treatment Guidelines.

Research

Research initiatives include: (1) performing pharmacoeconomic and outcomes analyses for evaluating publicly funded programs which provide antimicrobials for TB and STD management as well as programs in immunization; (2) helping to establish databases to collect information on regional utilization rates of vaccines; (3) developing enhanced surveillance systems for management of vaccine-related adverse reactions; (4) conducting a pilot project for populating the B.C. immunization registry; and (5) tracking antimicrobial utilization rates for the Province of British Columbia.

Education

The department is closely linked with the Faculty of Pharmaceutical Sciences at the University of British Columbia and provides training for undergraduate and postgraduate pharmacy students. Pharmacists also contribute to in-house educational programs for nursing and paramedical personnel.

Biologicals

Biologicals for TB and other immunization programs are provided under the public health mandates endorsed by TB Control and the Communicable Disease Control Immunization Program. The biologicals are managed by the Biologicals Desk, a Pharmacy responsibility that has collaborative partnering with Epidemiology Services. Pharmacy is responsible for purchasing and distributing biological products, addressing cold chain maintenance issues, communicating with the field to minimize and control wastage, and conducting surveillance that would enhance the efficiencies around output volumes. The Biologicals Desk is the Province's resource centre for product information.

Bioterrorism and Pandemic

Pharmacy is involved with the development of policies and procedures around bioterrorism and pandemic influenza including the distribution of vaccines, antibiotics or antiviral agents for mass immunization or medical treatment in response to an event.

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal A,B and C

Through the application of evidence-based public health policies eliminate endemic transmission of communicable diseases, such as - diphtheria, measles, mumps, polio, rubella, Haemophilus influenzae type b (Hib), hepatitis B and syphilis

Through the application of evidence based public health policies achieve effective control for diseases such as, tuberculosis, HIV, hepatitis A and C, chlamydia, gonorrhea, influenza and pertussis

Through the application of evidence based public health policies reduce the adverse impact of environmental hazards on human health

Strategy

- Evaluate and report on utilization of needles/syringes and condoms to identify problems with needle exchanges and to forecast and control costs
- Provide patient education of medications used for prevention and treatment of tuberculosis infection and reinforcement of compliance with these medications

Pharmacy Services Objectives and Performance Measures to Goals 1

2003 — 04 Objectives	Performance Measure
Produce Quarterly Performance Reports on vaccine distribution, utilization and associated costs	Reports completed to the satisfaction of Epidemiology Division and HOC and Nursing Councils
In conjunction with Epidemiology, explore and implement plans to increase uptake of the pneumococcal vaccine	Pneumococcal vaccination rates among persons over 65 and HR populations.
In conjunction with Epidemiology, analysis of data related to vaccine adverse events	Conceptual design of the project completed and supported by HOC and Nursing Councils

Vaccine and Pharmacy Services

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal A,B and C

Through the application of evidence-based public health policies, eliminate endemic transmission of communicable diseases, such as - diphtheria, measles, mumps, polio, rubella, Haemophilus influenzae type b (Hib), hepatitis B and syphilis

Through the application of evidence-based public health policies achieve effective control for diseases such as, tuberculosis, HIV, hepatitis A and C, chlamydia, gonorrhea, influenza and pertussis

Through the application of evidence-based public health policies reduce the adverse impact of environmental hazards on human health

Strategy

- Evaluate and report on childhood and adult vaccination distribution and utilization rates; vaccines evaluated include diphtheria, tetanus, polio, hib, measles, mumps, rubella, pneumococcal, influenza, hepatitis A, and hepatitis B
- Increase uptake of the pneumococcal vaccine for chronically ill risk groups between 2-64 years and those ≥ 65 years
- Develop a vaccine adverse event reporting system for collection and surveillance of data related to vaccine side effects
- Evaluate and report on utilization of STD/AIDS and TB drugs to identify problems with treatment compliance and to forecast and control costs

Pharmacy Services Objectives and Performance Measures to Goals 1

2003 — 04 Objectives	Performance Measure
Produce Quarterly Performance Reports on STD/AIDS and TB drug utilization	Reports completed to the satisfaction of STD/AIDS and TB Control Divisions and HOC and Nursing Councils
Produce Quarterly Performance Reports on distribution of needles/syringes and condoms	Reports completed to the satisfaction of STD/AIDS Control, Hepatitis Divisions, HOC and Nursing Councils
Produce Annual Report on results of the patient satisfaction survey and impact of education on treatment completion rates	Reports completed to the satisfaction of TB Control Division. Patient satisfaction and education target met

Goal Two:

Detect and Respond to New Disease Threats

Enhance and apply mechanisms to rapidly recognize and respond to emerging microbial and non-microbial disease threats to human health, including water and food borne disease outbreaks, pandemic influenza, Bioterrorism, SARS, West Nile and Norovirus, and other new emergent infectious disease agents

Strategy

- Support the development of a Bioterrorism mass immunization and antibiotic response plan
- Support the development of a pandemic influenza mass immunization and antiviral response plan
- Promote the development of a plan on the pharmacists' contribution in an emergency event
- Collaborate with Tuberculosis Control to monitor and ensure patient adherence to appropriate treatment to Multi Drug Resistant (MDR)TB

Pharmacy Services Objectives and Performance Measures to Goals 2

2003 — 04 Objectives	Performance Measure
Draft Plan for antibiotics stockpiling and distribution for Bioterrorism and antiviral distribution for pandemic flu	Plan completed and accepted by Epidemiology and Health Authorities
Draft Plan for acquisition and distribution of vaccines for bioterrorism and pandemic flu	Plan completed and accepted by Epidemiology and Health Authorities
100% therapeutic drug monitoring of MDR TB Patient to ensure adequate serum concentration	Monitoring rates

Vaccine and Pharmacy Services

Goal Three:

Develop and Apply Advanced Informatics

Develop and apply advanced surveillance systems for alert and performance monitoring purposes in public health

Strategy

- In conjunction with Information Management and other PHSA institutions, formulating a fully integrated computerized drug usage reporting system for STD and TB medications which will evaluate the number of prescriptions filled, track actual costs, and projected annual expenditures
- Formulate a fully integrated computerized drug usage reporting system for vaccine, needles/syringes and condom distribution which will evaluate the number of products distributed, track actual cost, and project annual expenditures
- Pilot the use of hand-held inventory control systems in the field

Pharmacy Services Objectives and Performance Measures to Goals 3

2003 — 04 Objectives	Performance Measure
STD drug utilization report covering amoxcillin, azithromycin, doxycycline, penicillin G benzathine, erythromycin, metronidazole, spectinomycin, cefixime and ciprofloxacin in order to track patient compliance and control costs	# of STD Drugs effectively, tracked, costed and managed
TB drug utilization report covering isoniazid, rifampin, pyrazinamide, ethambutol, ciprofloxacin, levofloxacin, and BCG vaccine in order to track patient compliance and control costs	# of TB Drugs effectively, tracked, costed and managed
NEX program utilization report covering needles/syringes, condoms, lubricants, sterile water in order to track number of exchanges and control costs	# of NEX program components effectively, tracked, costed and managed

Goal Four:

Create Knowledge Through Applied Research and Innovation

Discover research findings of international significance that contribute to evidence-based policy and practice that results in improved health for British Columbians

Strategy

- Advance BCCDC Research Plan and integrate with the Provincial Health Services Authority research strategy
- Create an environment that is supportive of research and facilitates effective collaboration with other scientific institutions and researchers in BC, Canada, and internationally
- Encourage professional staff to apply for research grants, present their findings at national and international conferences, publish in peer-review journals, and apply for awards
- Strengthen integration of research in the areas of antibiotic utilization, adverse event monitoring, cost-effectiveness of drugs and biologicals, and pharmacogenomics in order to better serve evidence based public health policy and practice

Pharmacy Services Objectives and Performance Measures to Goals 4

2003 — 04 Objectives	Performance Measure
Undertake an analysis of antibiotic utilization in the province	Epidemiology and PHO acceptance of analysis and recommendations
Undertake a cost-effectiveness analysis for implementation of the new vaccine programs	Epidemiology and PHO acceptance of analysis and recommendations
Receive at least one grant per year	# of grants
Produce at least one scientific paper for publication	# of publications

Vaccine and Pharmacy Services

Goal Five:

Advance Public Health Excellence

Attract, develop and retain highly qualified persons to sustain and support state of the art public health services throughout the province

Strategy

- Provide support for continued education of staff
- Create efficiency in the distribution system in order to increase pharmacist time for more patient-related activities
- Continue improving on turn-around time and accuracy of drugs being distributed by the BCCDC pharmacy
- Provide the most cost-effective transport of pharmaceuticals to allow for safe and efficient delivery of the provincially administered programs centralized by the BCCDC
- Promote "tech-check" by pharmacy technicians to allow the pharmacist to focus on clinical monitoring of drug outcomes
- Track transport costs of all medications being sent from the pharmacy as well as vaccines from Lynden by creating year-to-date reports on a quarterly basis

Pharmacy Services Objectives and Performance Measures to Goal 5

2003 — 04 Objectives	Performance Measure
Achieve dispensing turn-around time of one week for TB and STD orders, 15 minute over the counter for leprosy orders and 48 hours by mail, and 48 hours for biologicals and 4 hours for emergency drugs e.g. rabies vaccine	Turn around times Implement "tech-check" programs
Achieve adequate workload for staff	Work load statistics for the pharmacists, technicians and biologicals clerk Number of transactions (ie new prescriptions, refills and stock movements) per month
Support staff continuing education	# of hours. Year over year % increase
Achieve a zero dispensing error rate	Error rate

Goal Six:

Provide Leadership and Create Partnerships

Provide provincial / national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada

Strategy

- Continue to forge alliances with other divisions within the BCCDC, Faculty of Pharmaceutical Sciences at the University of British Columbia, College of Pharmacists, BC Pharmacists Association, Canadian Society of Hospital
- Pharmacists, Health Canada and other national and international organizations
- Establish alliances with Pharmacy Services within PHSA and the five regional Health Authorities

Pharmacy Services Objectives and Performance Measures to Goal 6

2003 — 04 Objectives	Performance Measure
Establish two joint initiatives with external partners	# of joint initiatives
Membership on a minimum of two external committees	# of committees
A minimum of two conference or training presentations to external stakeholders	# of presentations

Hepatitis Services

Dr. Mel Krajden, Director, Hepatitis Sevices

Program Structure

BC Hepatitis Services brings together clinicians, scientists, educators, health and social service agencies and consumers to develop and implement best practices for integrated hepatitis prevention and care management within British Columbia

Hepatitis Issues

- 40,000 hepatitis C virus chronic infections in BC
- 40,000 hepatitis B virus chronic infections in BC
- 15-30% will die or require transplantation over 10-30 years
- New, expensive therapies can improve outcomes or even cure infections
- Integrated, cost-effective solutions are required

Program Goals

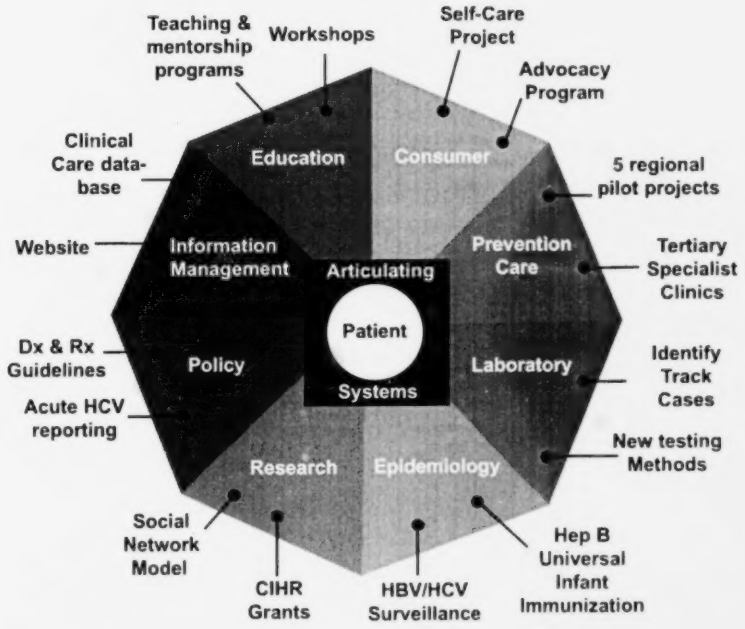
- To reduce the harmful effects of Hepatitis B and C in those already infected by employing best practices to treat and/or cure hepatitis
- Reduce the incidence of Hepatitis A and B by 25%, and Hepatitis C by 10% in BC within 5 years
- Integration of client-focused and cost-effective services
- Develop models for effective integrated health services
- Model, test and refine best practices in diverse settings throughout BC

Activities include developing and/or supporting quality improvement/research initiatives such as:

- An interdisciplinary education, training and mentoring program
- A health advocacy program to assist patients/families to clearly articulate their needs
- Support clinical practice guidelines development and processes for updating
- Integrated prevention and care management programs
- Statistical models to inform decision making, track indicators and monitor best practices
- CIHR funded research
- Clinical and public health databases to track outcomes

Lessons Learned

- We need to share knowledge about the best practices to guide prevention and care decisions
- Prevention for vaccine treatable illnesses e.g., Hepatitis A and B requires systematic vaccination of at-risk populations
- For agents such as hepatitis C, where no vaccine exists, comprehensive harm reduction strategies are necessary
- Health care silos can be integrated
- Models of integrated prevention and care must be tailored to social, economic and regional needs
- Issues of managing chronic hepatitis reach far beyond the disease



Hepatitis Services

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Through the application of evidence-based public health policies eliminate local transmission of Hepatitis B

Sub Goal A

Reduce the acute hepatitis B infection rate to less than 2.0 cases per 100,000 population

Strategy

- Monitor acute hepatitis B incidence rates, evaluate vaccine uptake and encourage immunization in high-risk adults
- Focus risk reduction initiatives on high-risk sub-populations including Aboriginal peoples, incarcerated individuals and immigrants from endemic regions
- Develop and coordinate multifaceted education and mentorship programs for healthcare professionals using leading edge communication strategies
- Use regional demonstration projects to assess the utility of regional integrated hepatitis prevention and care management programs to enhance local access to services
- Integrate hepatitis A and C prevention, care and treatment into all five regional demonstration projects. Focus on self-care best practices for primary, secondary and tertiary prevention strategies within the projects' services

Hepatitis Services Objectives and Performance Measures Related to Goal 1-A

2003 — 04 Objectives	Performance Measure
Achieve immunization coverage of at least 80% in targeted groups and maintain acute hepatitis B incidence rates at or below 2.0 cases per 100,000 population	Incidence rates per 100,000 population
Continue education and health promotion activities in partnership with Chee Mamuk (Aboriginal HIV/AIDS/Hepatitis Health Promotion Program)	Number of regional demonstration projects with risk-reduction strategies targeting high-risk populations
Extend the program reach by developing strategies in at least 2 of the five regional demonstration projects	
Plan and provide one three day Interdisciplinary Viral Hepatitis Workshop for health care professionals	Participant satisfaction ratings
Develop and implement a mentorship program at the Vancouver Hospital and Health Services Centre (VHHSC) for physicians and nurses	Mentorship program implemented
Integrate hepatitis B prevention and treatment into at least four of five regional demonstration projects	Number of regional demonstration project sites with 'positive' scorecards

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal B

Reduce the hepatitis A infection rate to less than 2.0 cases per 100,000 population. Monitor the acute hepatitis C infection rate and reduce the hepatitis C infection rate to less than 100 cases per 100,000 by 2006.

Strategy

- Monitor hepatitis A incidence rates and encourage immunization in high-risk adults
- Initiate hepatitis A and C risk reduction education for high-risk groups
- Assess the feasibility of an acute treatment program for hepatitis C in partnership with treating specialists
- Facilitate implementation of hepatitis A and C best practices for prevention and treatment by building capacity through the regional demonstration projects

Hepatitis Services Objectives and Performance Measures Related to Goal 1 B

2003 — 04 Objectives	Performance Measure
Maintain hepatitis A incidence rates at or below 2.0 cases per 100,000 population	Incidence rates per 100,000 population
Obtain funding to develop a self-advocacy/systems navigation educational program(s) in partnership with rural and urban Aboriginal communities	Funding secured. Partnerships and educational program(s) initiated
Develop treatment algorithm using a collaborative process	Treatment algorithm developed
Support the regional demonstration projects in the development of educational/training sessions	Number of best practices education/training sessions provided by the regional demonstration projects
Support the regional demonstration projects in the integration of appropriate hepatitis A and C prevention, care and treatment programs	Services provided by regional demonstration project sites

Hepatitis Services

Goal Two:

Detect and Respond to New Disease Threats

Enhance and apply mechanisms to rapidly recognize and respond to infectious disease threats to health

Improve detection and reporting of acute hepatitis C

Strategy

- Integrate lab testing and reporting with acute hepatitis C enhanced surveillance and case tracking to improve case identification and collection of epidemiological data
- Increase the percentage of acute cases of hepatitis C reported in the Public Health Information System (PHIS) in correlation with those identified with lab data
- Improve surveillance linkages with laboratories throughout the province
- Educate primary care practitioners regarding disease recognition and best practices for treatment in partnership with the BC Medical Association (BCMA)

Hepatitis Services Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Report laboratory data in conjunction with risk factors to provide more reliable estimates of current causes of hepatitis C infection	Documentation of current causes of acute hepatitis C infection
Achieve a 90% PHIS reporting rate	Number of cases reported in PHIS
Actively participate in primary care reform, lab reform, and information management reform	Contribution to health care reform initiatives
Implement and test a web-based communications platform to link practitioners in regional demonstration projects with liver specialists at VHHSC	Communications platform implementation and evaluation

Goal Three:

Develop and Apply Advanced Informatics

Develop and apply advanced surveillance systems for alert and performance monitoring purposes in public health

Develop an integrated database that captures 95% of persons screened for and/or infected with hepatitis C in order to track treatment and infection rates, monitor specific outcomes and assess clinical strategies for cost-effectiveness

Strategy

- Evaluate and track the response to pegylated interferon/ribavirin treatment for hepatitis C
- Define and report on the demographics of hepatitis C cases in BC to better define the burden of disease
- Measure regional demonstration projects' hepatitis clinic capacity and outcomes

Hepatitis Services Objectives and Performance Measures Related to Goals 3

2003 — 04 Objectives	Performance Measure
Link Pharmacare treatment information with laboratory results	Report describing interim treatment outcomes
Obtain and analyse demographic hepatitis C case data	Report describing burden of hepatitis C infection
Develop a report card system to report regional demonstration projects activities and outcomes	Percentage of users satisfied with report card

Hepatitis Services

Goal Four:

Create Knowledge Through Applied Research and Innovation

Discover research findings of international significance that contribute to evidence-based policy and practice that result in improved health for British Columbians

Strategy

- Produce a phase one mathematical model that describes hepatitis C virus dynamics at a population level
- Through statistical analysis of persons undergoing hepatitis C treatment at VHHSC and persons identified as being hepatitis C infected based on laboratory testing, estimate the overall burden of disease in BC
- Describe optimal diagnostic algorithms for the diagnosis of active hepatitis C virus infection

Hepatitis Services Objectives and Performance Measures Related to Goal 4

2003 — 04 Objectives	Performance Measure
Develop a functional model and conduct initial assessments of the impact of best practices on the burden of hepatitis C disease in BC	Assessment results
Describe the available clinical and demographic characteristics of hepatitis C cases in the general BC population compared to those undergoing treatment at VHHSC and document the burden of disease	Report describing results
Develop diagnostic algorithm	Report describing diagnostic algorithm

Goal Five:

Advance Public Health Excellence

Attract, develop and retain highly qualified persons to sustain and support state-of-the-art public health services throughout the province

Define, update regularly and implement hepatitis best practices throughout BC

Strategy

- Support the establishment of clinical practice guidelines and partnerships to support primary care training and reform
- Develop an integrated viral hepatitis education, training and mentorship program at Vancouver Hospital Health Sciences Centre (VHHSC) for health professionals, other service providers, students, patients and families
- Develop educational tools that can be used by consumers, patients, voluntary agencies, social services and health care providers

Hepatitis Services Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Update clinical practice guidelines and maintain partnerships	Guidelines updated
Open resource centre by Sept 2003, hire co-coordinator, plan and develop centre programming	Centre open, co-coordinator hired; programming developed
Field-test the Generic Health Advocacy/Systems Navigation Education and Training Package	Evaluation of Generic Self-Advocacy/Systems Navigation Education and Training Package

Hepatitis Services

Goal Six:

Provide Leadership and Create Partnerships

Provide provincial/national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada

Continue developing alliances and partnerships within the PHSA and with community groups, consumer organizations, Health Authorities, Health Canada, Ministries of Health and the Canadian Viral Hepatitis Network to discover and promote best practices in hepatitis prevention and care

Strategy

- Support renewal of the national Health Canada Initiative on hepatitis C and its collaboration with CIHR
- Support the multi stakeholder Provincial Hepatitis Advisory Committee (PHAC)
- Provide open access to information and improve communication with health authority partners

Hepatitis Services Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Secure CIHR/Health Canada Research Initiative on hepatitis C funding for an additional five years (2004-2009)	Funding secured
Organize an annual meeting of the Provincial Hepatitis Advisory Committee (PHAC) with 75% attendance and maintain communication on relevant issues	Annual PHAC meeting held
Identify, test and implement a web-based platform for shared information and enhanced communication with partners in regional demonstration projects	Communications platform implementation and evaluation

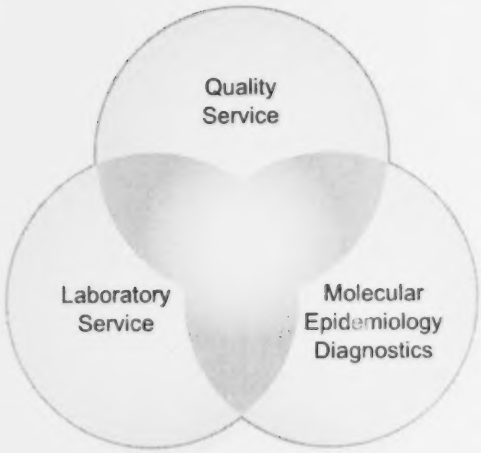
Laboratory Services

Dr. Judith Isaac-Renton, Director, Laboratory Services

Laboratory Services is a public health leader in British Columbia's labortatory network. After extensive strategic planning. The 15 fragmented laboratory groups were intergrated around 3 new programs (Molecular Quality, Biohazard Responses) and 5 discipline based Clusters. Working through this new Cluster format with programmatic development, five year goals *(To be leader's in Molecular Services, Laboratory Quality Management Systems, and Informatics)*. We support provincial state-of-the-art communicable disease diagnostic services; we provide expert clinical and technical consultations; we introduce and develop new technologies; threats to the public health. Strategic plans have focused on Molecular Services, Quality Management and our nationally recognized Biohazard Containment. Our renewed energy and rapid systematic advances across all fronts enabled Laboratory Services to become nationally recognized as a state-of-the-art public health and reference microbiology public health and reference laboratory.

Laboratory services is a large multidisciplinary team of medical technologists, clerical staff, laboratory, physicians and infection control practitioners. We partner with all microbiology laboratories in British Columbia.

Key Intergrated Leadership Programs



Laboratory Services

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goals A,B, and C:

- Through the application of evidence based public health policies, eliminate endemic transmission of communicable diseases, such as diphtheria, measles, mumps, polio, rubella, Haemophilus influenzae type b (Hib), hepatitis B and syphilis
- Through the application of evidence based public health policies achieve effective control for diseases such as tuberculosis, HIV, hepatitis A and C, chlamydia, gonorrhea, influenza and pertussis
- Through the application of evidence based public health policies, reduce the adverse impact of environmental hazards on human health

Strategy

- Improve laboratory alliance's throughout British Columbia
- Link directly with key laboratory clients in all Health Regions
- Develop novel approaches for laboratory based surveillance in partnership with Epidemiology Services
- Improve laboratory coordination of outbreak detection and management

Laboratory Services Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Improve detection of pathogens in outbreaks	% of gastrointestinal outbreaks which have etiology identified compared to previous years Set up coordination of respiratory outbreaks
Analysis of business medical and scientific aspects for laboratory microbial detection	Complete validation implementation protocol including business analysis

Goal Two:

Detect and Respond to New Disease Threats

Enhance laboratory systems to rapidly recognize and respond to emerging microbial and disease threats to human health, including water and food borne disease outbreaks, pandemic influenza, bioterrorism, SARS, West Nile, Norovirus, and other new emergent infectious disease agents

Strategy

- Develop strategic laboratory alliances throughout the province
- Educate laboratory professionals, public health workers and epidemiology colleagues about the laboratory science detection management of disease threats
- Validate and implement all new tests based on validation and implementation Protocol (Quality System element)

Laboratory Services Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Improve detection of new and emerging pathogens	Rapid detection methods evaluated for rapid detection of respiratory viral pathogens
	Rapid detection methods in place for enhanced detection of GI pathogens
	Molecular and serologual detection methods evaluated for rapid detection of neurotropic pathogens including West Nile virus
Develop molecular detection and fingerprinting techniques for use in a lab network along with other surveillance and outbreak investigation	Validate rapid molecular identification and detection of TB
	Complete business case and scientific evaluation for hepatitis C genotyping by DNA sequence method
	Implementation and evaluation use of Cryptosporidium fingerprinting in environmental samples. Development of Molecular for Cyclosporan detection in food
Enhance response capability of the CL3 facilities	Acquire basic equipment for 4th floor CL3 suite

Laboratory Services

Goal Three:

Develop and Apply Advanced Informatics

Develop and apply advanced laboratory surveillance systems for rapid alert and performance monitoring purposes in public health.

Strategy

- Develop protocols with partners that address laboratory information stewardship and patient privacy
- Collaborate with Epidemiology on enhancing data linkages for outbreak responses
- Work with other laboratory partners on enhanced clinical and environmental information systems
- Work with the Ministry of Health Planning province-wide informatics for drinking water

Laboratory Services Objectives and Performance Measures Related to Goal 3

2003 — 04 Objectives	Performance Measure
Continue implementation of Quality Management System document management and performance tracking software (QSI)	50% of 90 laboratory SOPs inputed into QSI system
Increase laboratory information system (LIS) support to keep up with increasing complexities and need for additional LIS support for Quality Management, Quality Assurance, surveillance and molecular testing	Recruit an additional LIS support specialist Provide advanced training in bioinformatics
Develop computer linkages for direct interface of laboratory data to other applications	Establish links with Epidemiology Services for West Nile and SARS laboratory test establish protocol results
Complete Informatics for Drinking Water project and communicate strategy to multiministerial stakeholders drinking water committee	Convene meeting of key drinking water stakeholders to discuss next steps and role for BC ADM's and national initiatives (EMS)

Goal Four:

Create Knowledge Through Applied Research and Innovation

Discover research findings of international significance that contribute to evidence based policy and practice that results in improved health for British Columbians.

Strategy

- Compete and obtain external funding for public health released research project
- Enhance related partnerships within the Canadian Water Research Network
- Create provincial partnerships for enhancing pubic health research

Laboratory Services Objectives and Performance Measures Related to Goal 4

2003 — 04 Objectives	Performance Measure
Seek external funding for applied research projects	Apply for and secure external funding for two projects
Collaborate with partners in the SARS vaccine initiative (SAVI)	Validate two SARS serological methods for vaccine studies
Continue development of new molecular methods for identification and characterization of microbes	Method in peer review of identification of TB and other mycobacteria using heat shock protein gene sequencing
	Method in place for identification of bacteria using 16S RNA gene sequencing
Collaborate with national and provincial partners to study enhanced surveillance for drinking water	Obtain grant funding

Laboratory Services

Goal Five:

Advance Public Health Excellence

Attract, develop and retain highly qualified persons to sustain and support state-of-the-art public health services throughout the province

Strategy

- Develop competitive human resources strategies to recruit and retain recognized laboratory leaders
- Create excellent team-building educational opportunities for laboratory and other public health workers

Laboratory Services Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Provide leadership related in bioterrorism and Biohazard Containment laboratory programs in BC.	Number of external educational sessions provided
Continue and develop new support of the Action Plan for Safe Water in British Columbia	Recruit an additional staff members to support the Laboratory Enhanced Quality Assurance program
Enhance liaison with the field regarding food and drinking water safety, infection control and biosafety	One multidisciplinary educational and team building workshops
Improve laboratory quality standards	Complete 10% of requirements for ISO/CAP registration Increase quality incident reports by 10% over 02/03 Complete internal quality assessment (IQA) for all lab sections
Improve staff education in target areas.	Increase staff training in molecular tests and quality management by 5% over the past 3 years

Goal Six:

Provide Leadership and Create Partnerships

Provide provincial / national leadership and create alliances in order to facilitate the balanced development of an effective public health system for British Columbia first and then Canada

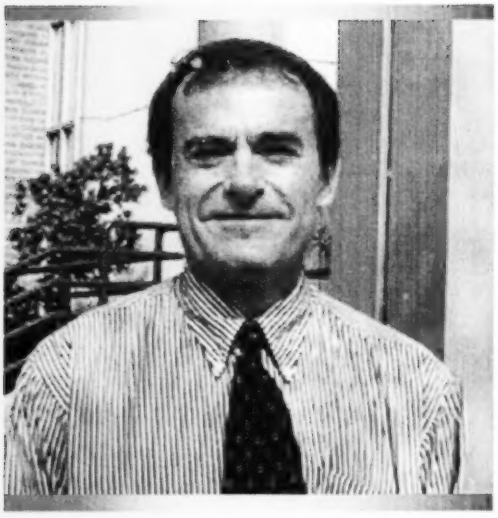
Strategy

- Enhance Laboratory Advisory Committee activities with public and provide laboratory partners
- Continue to team build PHSA laboratories

Laboratory Services Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Host province-wide educational sessions on areas of mutual concern and interest	Organize and host two symposia/ workshops
Partner with business interests to validate clinically new tests of public health importance	Complete evaluation of a new HIV point-of-care test Evaluation of remote biosensing device for enhanced drinking water surveillance Continuation of Roche Pegasys project for treatment of hepatitis C
Work with the Canadian Public Health Laboratory Network (CPHLN)	Meet yearly, participate in 6 teleconferences and partner on 2 projects
Participate in the PHSA Lab Enterprise project to rationalize testing and optimize cost-efficiencies in a patient-focused framework	Complete RFP and vendor selection for new PHSA laboratory information system (LIS)
Explore research opportunities with BC Cancer Agency	Hold meetings to discuss mutual interests re H. pylori and human papillomavirus (HPV)

STD/AIDS Control



Dr. Michael Rekart, Director

STD/AIDS Control monitors and directs province wide efforts to reduce the spread of sexually transmitted diseases (STDs) and HIV and to minimize their adverse health effects in British Columbia.

Policies and procedures for prevention, management and control of STDs and HIV are recommended by STD/AIDS Control and expert consultation is available to public health practitioners for the diagnoses and management of these diseases. A central registry and reporting system for reportable cases of STDs and AIDS is maintained and monitored.

An STD/HIV clinic is operated by the program to provide ambulatory, free and confidential assessment, treatment and education on STD's as well as counselling and referral for those who are HIV positive. The clinic provides an excellent venue for ongoing clinical research and is used as the major provincial training site in STD s and HIV testing and counselling for medical residents, interns and public health nurses.

The STD/AIDS Prevention Street Nurse Program is aimed at reducing the transmission of STD s and HIV amongst street-involved persons. The program is focused on STD/HIV education, testing, diagnosis and management. Support and advocacy, crisis counselling, first aid and medical and social service referrals are provided. The program also serves as the major provincial training site for STD/HIV outreach.

The Chee Mamuk Aboriginal Program provides on-site STD, HIV/AIDS and hepatitis education to Aboriginal communities on and off reserve. The program provides high quality community-based workshops and professional development training for Aboriginal health and human service workers, and Band and Tribal councils in order to plan and deliver culturally sensitive and sound education sessions.

The STD/AIDS Education and Training Department provides training programs in STD diagnosis and treatment, HIV testing and counselling and STD outreach nursing.

STD/AIDS Control is supported by its Resource Centre which provides information on STD/HIV/AIDS to health care practitioners, schools, businesses and the public in a variety of media.

Goal One:

Eliminate and Control Communicable Diseases

Strategy

- Develop coordinated plan for STD/HIV prevention in the gay community
- Pilot electronic data collection system developed in cooperation with Dr. Ann Jolly and Health Canada
- Daft peer educator guidelines
- Field test rapid syphilis test after validation trials by WHO

STD/AIDS Objectives and Performance Measures Related to Goal 1-A

2003 — 04 Objectives	Performance Measure
Eliminate syphilis by 2006 (<0.5/100,000)	Decrease syphilis growth rate to 0%
Incorporate social network analysis (SNA) as a regular case finding strategy	Electronic system for data collection/network mapping
Develop and implement mass testing and/or treatment intervention	
Implement peer education involving sex workers, johns and/or gay men	Develop peer educator program model

STD/AIDS Control

Goal One:

Eliminate and Control Communicable Diseases

Strategy

- Support delivery of 2nd version of Sex Now Survey at Gay Pride 2003 and evaluate results
- Develop coordinate plan for STD/HIV prevention in the gay community
- Participate in implementation of safe injection sites
- Facilitate adoption of AIDS policy for aboriginal agencies

STD/AIDS Objectives and Performance Measures Related to Goal 1-B

2003 — 04 Objectives	Performance Measure
By 2006, decrease new positive HIV tests by 30%	5% decrease in new positive HIV tests
Decrease HIV transmission in gay men	0% increase in new positive HIV tests in gay men (Develop and deliver prevention messages to gay community based on Sex Now Surveys of gay men)
Decrease HIV transmission in IDU's	0% increase in new positive tests in IDU's (Participate in implementation of safe injection sites and heroin prescription trial -NAOMI)
Decrease HIV transmission in Aboriginals	0% increase in new positive HIV tests in Aboriginals (facilitate implementation of an AIDS Policy in 2 Aboriginal communities)

Goal One:

Eliminate and Control Communicable Diseases

Strategy

- Complete and analyze population based chlamydia/gonorrhea survey
- Collect/ analyze population based chlamydia test data for 2002 from all labs

STD/AIDS Objectives and Performance Measures Related to Goal 1-C

2003 — 04 Objectives	Performance Measure
By 2005, develop a system to estimate annual Chlamydia prevalence and incidence; by 2006, decrease in Chlamydia incidence	(a) 10% increase in Chlamydia lab tests (b) 1% increase in % positive for Chlamydia tests
Increase public awareness of Chlamydia	Regularize system of monitoring private lab Chlamydia results & MSP data for Chlamydia; complete population-based study to estimate Chalmydia prevalence

Goal One:

Eliminate and Control Communicable Diseases

Strategy

- Complete and analyze population based chlamydia/ gonorrhea survey
- Collect/analyze chlamydia test data for 2002 from all labs

STD/AIDS Objectives and Performance Measures Related to Goal 1-D

2003 — 04 Objectives	Performance Measure
By 2006, new cases of Gonorrhea will decrease by 30%	Gonorrhea rate of increase reduced to 0%
Improve gonorrhea testing and treatment	Complete research into urine-based gonorrhea syphilis PCR

Goal One:

Eliminate and Control Communicable Diseases

Strategy

- Draft Reproductive Health Strategy

STD/AIDS Objectives and Performance Measures Related to Goal 1-E

2003 — 04 Objectives	Performance Measure
Decrease the reproductive health risks from bacterial and viral STD s	PID, ectopic pregnancy and tubal infertility rates decrease

STD/AIDS Control

Goal Two:

Detect and Respond to New Disease Threats

Strategy

- Participate in implementation of safe injection sites and heroin prescription trial
- Develop service agreement between Street Nurse Program and Vancouver Coastal Health Authority (VCHA)

STD/AIDS Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Develop divisional capacity to detect and respond to threats from new and re-emerging diseases	0% increase in syphilis, 5% decrease in new positive HIV tests
Reformulate Street Nurse Program into research-oriented, cutting edge service with provincial scope that can respond to new outbreaks	Safe injection sites begin operations with Street Nurse Program participation; develop draft service agreement with VCHA for Street Nurse Program

Goal Three:

Develop Enhanced Informatics

Strategy

- Complete Soul Access cubes
- Demonstrate Soul Access at Fall Health Officers Council
- Provide Power Play training to Health Authorities so they can begin to use Soul Access

STD/AIDS Objectives and Performance Measures Related to Goal 3

2003 — 04 Objectives	Performance Measure
Improve access to STD/HIV/AIDS data and analysis for MHO s, PHNAs, BC public health community and public	"Soul Access" successfully piloted
Develop non-nominal, confidential data warehouse with real time stats, password access, standard and custom reports ("Soul Access")	STD, HIV, AIDS cubes completed; Access and training for Medical Health Officers and Health Authorities

Goal Four:

Foster Applied Research and Innovation

Strategy

- Complete STD Control Research Plan

STD/AIDS Objectives and Performance Measures Related to Goal 4

2003 — 04 Objectives	Performance Measure
Foster applied research and innovation	3 peer reviewed articles
Institute formal Research Program for STD/AIDS Control	Research Plan completed

Goal Five:

Maintain Public Health Excellence

Strategy

- Deliver client and staff satisfactions surveys
- Begin to use new performance appraisal

STD/AIDS Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Maintain and improve quality of core programs with increased focus on primary prevention	Client and staff sastisfaction surveys completed
Promote and develop the skills of staff	Implement new performance and appraisal format

STD/AIDS Control

Goal Six:

Provide Leadership and Support Partnerships

Strategy

- Facilitate adoption of AIDS Policy by Aboriginal Organizations
- Facilitate adoption of Aboriginal AIDS School Curriculum
- Develop train-the-trainer/ preceptor strategy for HIV reportability and contact tracing in Health Authorities
- Draft plan for distant learning programs
- Develop sub-agreements with each Vietnam partner involved in HCCN project
- Train staff for provincial HCCN programs in 4 province

STD/AIDS Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Increase CD control and prevention services to Aboriginals	New AIDS Policy in 2 Aboriginal groups
	AIDS School Curriculum adopted by 2 schools
Increase Chee Mamuk programs and services	Stabilize Chee Mamuk administrative and clerical support system
Increase training opportunities for BC public health community, especially PHNs	Increase number of trainees
Develop distance learning programs (DLPs)	DLP curriculum for outreach nursing training completed
Support HIV reportability by providing training for PHNs	PHN preceptors in each health service delivery area (HSDA)
Increase capacity in Vietnam for STDI/HIV/AIDS control	HCCN Project achieves Year 3 objectives
Implement HCCN Project	One (1) HCCN Program in all 4 provinces

Tuberculosis Control

Dr. Kevin Elwood, Director

Tuberculosis (TB) Control serves as British Columbia's referral centre for the prevention treatment and control of tuberculosis and maintains and monitors a registry of all active cases of TB in the province. The program's operations aim to ensure a progressive reduction in the annual incidence rate of active tuberculosis and its morbidity and mortality.

Policies and procedures for prevention, management and control of tuberculosis are recommended by TB Control and expert consultation is available to public health and community practitioners for the diagnoses and management of tuberculosis.

Clinic services are provided to the public through outpatient clinics in Vancouver, New Westminster and Victoria; a Street Nurse Program provides supervised treatment for tuberculosis in the downtown east side of Vancouver and Field Operations provides consultative clinics in various locations of the province to service those clients outside of the lower mainland. Tuberculin skin testing, contact tracing, vaccinations, on site X-ray, arrangement of hospital admission for treatment, directly observed treatment and follow-up of active cases, and those referred for post landing surveillance are some of the services provided.

TB Control contracts with the federal government to provide services to Aboriginals living on reserve and contracts with the government of Yukon to provide services to that region.

Tuberculosis Control

Goal One:

Eliminate and Control Communicable Diseases

Achieve effective control for tuberculosis, HIV, hepatitis A, hepatitis C, gonorrhea, chlamydia, pertussis and influenza

Strategy

- Initiate treatment for every case of active disease within 48 hours from the date of diagnosis
- Provide fully supervised therapy for those at risk for poor compliance
- Offer preventive treatment to 100% of high risk foreign born cases which are referred for post-landing surveillance
- Reinforce recommendations for preventative treatment of all appropriate cases
- Initiate contact tracing of every case of active disease within two weeks
- Provide for staff safety by ensuring appropriate negative pressure airflow in clinics; staff take full safety precautions against infection and screening of medical and support staff as recommended.

TB Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Promptly initiate treatment of every case of active disease such that treatment is initiated within 24 hours from date of diagnosis	Time between diagnosis and treatment commencement
95% treatment completion rate of every case of infectious TB	Completion rate
Offer preventative treatment to all high risk patients with latent tuberculous infection	# offered, # accepted, % completion chart audit
Review all cases referred for post landing surveillance for TB risk assessment	% reviewed by TB Control vs # referred
Timely and effective contact tracing of every case of active disease in order to screen 95% of close household contacts and 80% of non household contacts	% of household contacts screened % of non household contacts screened
Minimize risk of TB infection in TBC clinics in order to achieve a zero rate of staff infections	% infection in staff

Goal Two:

Develop institutional mechanisms to rapidly recognizing the response to an emerging infectious disease threats to health

Sub Goal Rapidly recognize and respond to drug resistant tuberculosis as an emerging infectious disease threat to health

Strategy

- Review every case of multiple drug resistant (MDR) disease
- Monitor and assess every case of acquired drug resistance for causation
- Promptly screen all migrants upon arrival to BC
- Encourage timely notification from Citizen and Immigration Canada of HIV infected persons entering BC
- Replace BCG vaccination with enhanced surveillance of children of high risk reserves
- Limit clinic visits from SARS affected areas to 10 days after landing
- Implement evidence based guidelines for treatment of HIV related TB for those with low CD4 counts
- Initiate early screening of all non convention refugees and migrants in lower mainland

TB Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Ensure every case of multiple drug resistance (MDR) disease has appropriate drug treatment and isolation	% of MDR cases completing treatment
Causation for every case of acquired MDR will be determined	% of causal determination
Monitor rates of miliary and CNS TB in aboriginal children on reserve	# of cases reported
Calculate Annual risk of infection (ARI)	ARI in aboriginal children
Finalize agreement with Citizen & Immigration Canada (CIC) to refer all refugees to BCCDC for medical screening	Date of implementation

Tuberculosis Control

Goal Three:

Develop advanced distributive information system for surveillance alert for performance monitoring purpose and health

Advanced informatics will be developed for surveillance, alert and performance monitoring purposes of Tuberculosis Control

Strategy

- Finalize TB Module of PHIS to advance informatics in TB Control
- Assessing and reviewing the optimal information requirements for effective control of tuberculosis and applying the appropriate resource to deliver
- Assessing advanced medical technology

TB Objectives and Performance Measures Related to Goal 3

2003 — 04 Objectives	Performance Measure
Implement the TB Module in PHIS and assure every TBC employee is trained and appropriately using the TB Module, and that the system achieves zero downtime	% of staff trained % downtime % of appropriate staff using PHIS for case management
Timely and effective epidemiological, statistical, and management information for TBC	% utilization for epidemiological and statistical reporting End user satisfaction rate with quality and timeliness of epidemiological and statistical reports
Initiate transfer to TB clinical module by October 2003	Date of start up
Install high quality viewing station to utilize digital x-ray images	Date of installation

Goal Four:

Establish an environment which fosters discovery of research findings of international significance and which contributes to evidence based policy development

Applied research and innovation will be fostered which will contribute to evidence based policy development concerning tuberculosis control and elimination

Strategy

- Develop a test for organ viability
- Participate in CDC Clinical Trials Consortium
- Partnership with CDC-Atlanta focused on enhanced contact investigation through social networking
- Submit papers for peer review publication

TB Objectives and Performance Measures Related to Goal 4

2003 — 04 Objectives	Performance Measure
Reduce isolation times of TB infectious patients by developing a test for organism viability	Performance Measure% reduction in isolation time
Complete CDC Clinical TB Consortium trials. Initiate new CDC protocol examining the value of social networking in contact tracing	Date of implementation
In conjunction with the Provincial Lab initiate new technologies to speciate mycobacteria into clinical practice.	Monthly study reports; presentations at TBESC meetings
Foster research to submit 3 peer reviewed papers for publication	
Replace RFLP technology with spoligotyping and MIRU-VNTR typing	

Tuberculosis Control

Goal Five:

Promote and develop the skills of highly qualified persons to sustain and support state of the art public health services throughout the province

Public Health excellence in control of tuberculosis will be maintained by promoting and developing the skills of highly qualified persons

Strategy

- Developing and implementing training programs leading to certification for tuberculin skin testing
- Expand training program to improve quality of skin testing
- Update the TB section of the CDC Manual to ensure contents reflect current guidelines
- Continue in-house training sessions
- Produce video explaining latent TB infection to aboriginal community
- Complete and deliver a teaching module for use in Canadian Correction facilities

TB Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Tuberculin skin testing is performed consistently and accurately read throughout the province	# of health care professionals completing the course
Public health practitioners will have timely access to clear policy and procedure for effective and efficient control of TB	% increase of web site visits to on-line policy manual Date of completion of manual update
Expertise of TBC practitioners- will be used to educate and train other health practitioners involved in control and management of TB	% increase in number of persons attending sessions Satisfaction rates

Goal Six:

Promote and develop the skills of highly qualified persons to sustain and support state of the art public health services throughout the province

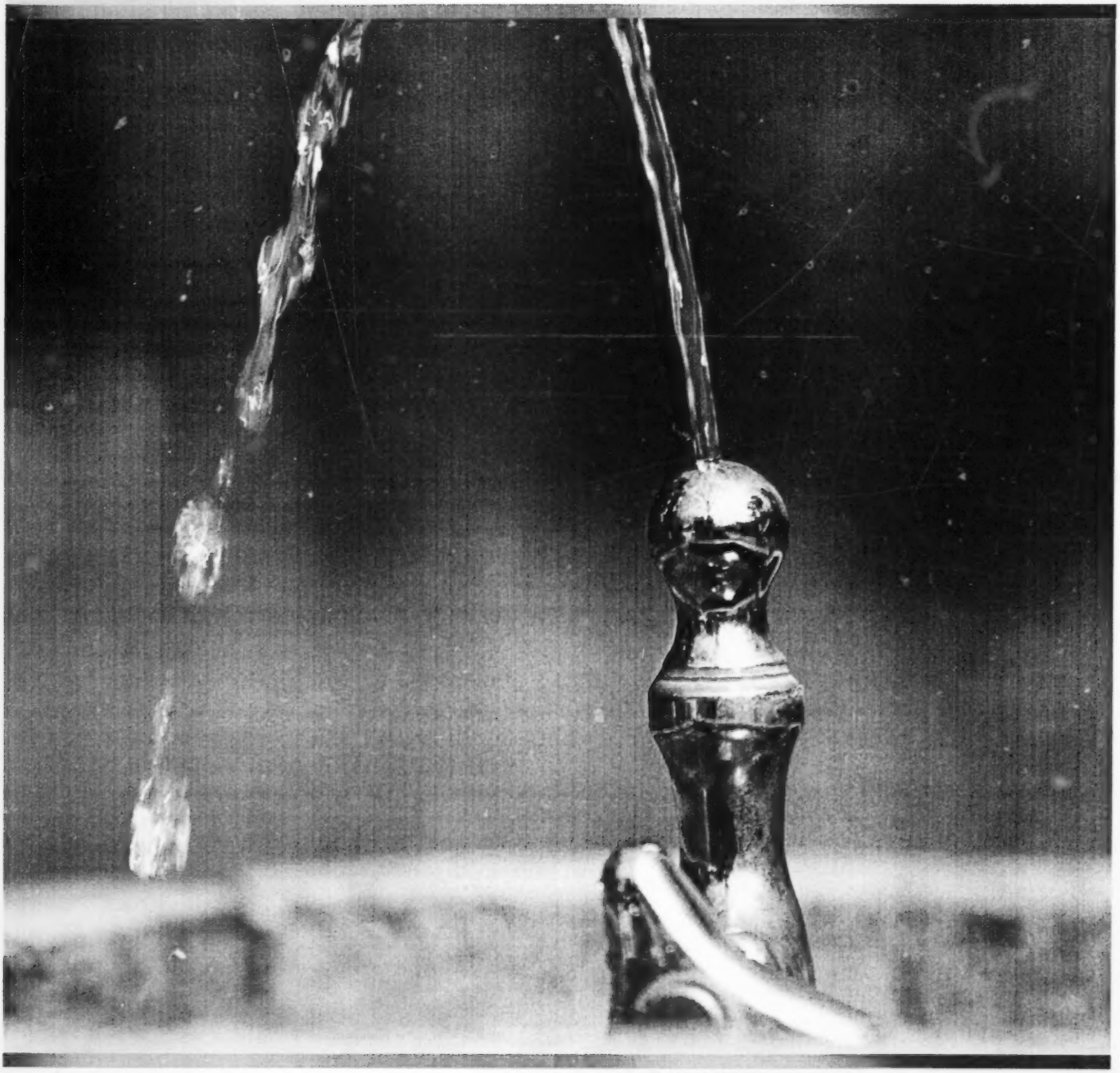
Provide leadership and create alliances in order to facilitate the development of an integrated public health system for British Columbia

Strategy

- Create and maintain partnerships with other agencies to reduce the rates of active TB especially in high-risk areas
- Continue close liaison and participation with local, national and international committees and agencies

TB Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Implement collaboration with Vancouver Coastal Health Authority to reduce rates of TB in downtown Eastside	Performance Measure Degree of mutual satisfaction with partnership initiatives
	Reduction in active TB disease in downtown eastside
	% Screened
	% increase in those placed on treatment for latent infection
Close liaison and participation in National Committees related to TB control	# of committees
	# of presentations at conferences, national, and international events
	# of partnerships which lead to demonstrable improvement in TB control



Environmental Health Services

Environmental Health Services

Environmental Health Services at BCCDC:

- Provide the Ministry of Health, and Ministers with scientific advice the Ministry requires, to develop provincial policy and legislation. As well, provide scientific and technical information, which will assist Ministers in responding to issues and answering questions related to environmental health
- Provide capability to support Health Authorities with up-to-date information on responding to or managing unusual or complex situations involving risks to human health from environmental hazards
- Develop province-wide information systems on the presence of, and human exposure to, hazardous agents in British Columbia
- Provide accurate up-to-date information on relationships between environmental hazards and human health for the public, health care providers and policy makers
- Increase the availability of advanced training opportunities for students and staff already working in Environmental Health in British Columbia
- Provide improved access to a broad range of policy relevant scientific information for effective policy setting and program management with an emphasis on setting priorities and focusing on environmental hazards contributing the greatest burden of morbidity and mortality in the British Columbia Population
- Contribute to the expansion of research capacity in environmental health in British Columbia
- Enhanced cost efficiencies through a central pool of expertise and coordinated funding agreements

Environmental Health Services at BCCDC includes the following programs:

- Risk Assessment
- Toxicology
- Food Protection Services
- Radiation Protection Services
- Drug and Poison Information Centre

As well, Laboratory Services, play an important role in the detection and control of environmental disease, especially in relation to drinking water and food safety.

Environmental Health – Toxicology

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Strategy

- Provide expert "state-of-the-art" scientific consultation in Environmental Health and Toxicology in support of the Ministries of Health Planning and Health Services, Health Authorities, and other stakeholders such as WCB, and other government Ministries, municipalities, individuals and community groups
- Provide leadership for the establishment of a cost effective environmental health function at BCCDC
- Develop and maintain academic and research affiliations to harness knowledge and develop BC scientist, researchers, and practitioners
- Develop revenue opportunities to support the advancement of environmental health expertise at BCCDC

Toxicology Objectives and Performance Measures Related to Goal 1

2003 – 04 Objectives	Performance Measure
Establish a coordinated environmental health function at BCCDC complete with organization structure and business plan	Approved Business Plan
Develop and implement a Communication Plan for potential users of the EH capacity at BCCDC	Communication Plan implemented
Provide environmental health and toxicology expert advice on a 24/7 basis to Health Authorities and Ministry stakeholders	Stakeholder/customer survey

Goal Two:

Develop institutional mechanisms to rapidly recognizing the response to an emerging infectious disease threat to health

Strategy

- Monitor national and international environmental health developments and assess their relevance to BC and develop related risk management strategies
- Develop partnerships with jurisdictions related to environmental health in order to maximize surveillance capacity, expedite cost effective prevention and remediation e.g. BC Cancer Agency, WCB, Ministry of Lands, Air and Water
- Provide direct consultation to public health field staff in support of environmental health investigations and hazard abatement planning
- Develop a data base for environmental health surveillance and analysis of the cost effectiveness of environmental health strategies

Toxicology Objectives and Performance Measures Related to Goal 2

2003 – 04 Objectives	Performance Measure
Produce a priority list of potential environmental health risks and assemble a working group to begin the development of priority risk management strategies	Inventory completed and endorsed by HOC and EHC
Develop a data warehouse from existing data sources in order to identify critical knowledge gaps	Preliminary database developed with sufficient functionality to provide surveillance information
Provide expert consultation to field and Ministry within 72 hours of request	Service request log - completion times

Environmental Health – Toxicology

Goal Three:

Develop institutional mechanisms to rapidly recognizing the response to an emerging infectious disease threat to health

Strategy

- Collaborate with other jurisdictions to obtain access to environmental health information sources
- Build upon new initiatives such as Drinking Water to develop an environmental health information system
- Work with PHSA partners, such as BC Cancer, Children's and Women's Hospital and the Population Health Division to develop information management capacity

Goal Four:

Establish an environment which fosters discovery of research findings of international significance and which contributes to evidence based policy development

Strategy

- Strengthen post secondary research affiliations
- Engage Health Authorities in research partnerships
- Partner with WCB and other Ministries to fund and undertake environmental health research
- Maintain UBC teaching responsibilities and engage graduate students
- Contribute to peer reviewed publications
- Participate in National and International Educational and Policy Forums

Toxicology Objectives and Performance Measures Related to Goal 4

2003 – 04 Objectives	Performance Measure
Two new externally funded research initiatives. One peer reviewed publications.Two graduated students engaged	External funding received
Formalized collaboration established	Publication accepted
Data assembled and used	Post secondary student placements

Goal Five:

Maintain Public Health Excellence

Strategy

- Support Health Authorities in the development of Risk Management expertise
- Provide web based information on the top 10 environmental health issues
- Team build across the environmental health program areas at BCCDC and PHSA
- Recruit appropriate resources to compliment existing staff expertise

Toxicology Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Human Resource and training plan for BCCDC environmental health resources	Human resource plan endorsed by BCCDC executive and PHSA HR
Provide five training sessions for Health Authorities in Risk Management	Training session attendance rate
Provide web based information on 10 priority environmental health issues	Web utilization rates

Goal Six:

Provide Leadership and Support Partnerships

Strategy

- Work in collaboration with the Core Public Health Review and related legislation to establish the environmental health function as a key component of public health
- Support the Ministry, Health Authorities and the PHO in addressing critical environmental health issues
- Develop partnerships within PHSA to strengthen capacity and commitment to environmental health disease prevention strategies
- Develop and maintain national and international collaborations to ensure BC has ready access to the best science and knowledge

Toxicology Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Develop the concept of an Environmental Health Policy Committee similar to the Communicable Disease Policy Committee in order to provide provincial direction on environmental health issues	Concept documented and endorsed by key stakeholders
Definition of environmental health core functions and related evidence-base	Environmental Health included in core functions and legislation

Food Protection Services

Larry Copeland, Director, Food Protection Services

The safety of the food supply is a fundamental determinant of the health of British Columbians. Food Protection Services provides leadership in developing strategies and programs which contribute to ensuring the safety of the food supply in British Columbia. To this end, Food Protection Services provides direct prevention/inspection services to the dairy, meat and fish processing industries, and acts in a consultative/resource capacity to the Ministry of Health and the five Health Authorities directly responsible for the delivery of the remaining food safety programs. In these capacities Food Protection Services can directly control some factors affecting food safety, influence outcomes in others, and in some cases only respond to issues.

Food Protection Services organizes, and leads food safety assessments of food industry sectors. These assessments involve coordinating the efforts of multiple levels of government and industry sectors, analyzing food safety systems, and making recommendations to change, add and enhance food protection strategies throughout the food continuum. Successful initiatives have been undertaken for the shellfish, egg and fresh produce industries.

The recent trend toward outcome/science-based regulation and risk-based inspection requires that the Health Authorities implement strategies that enable field inspectors to carry out the prescribed objectives. Food Protection Services provides necessary support and guidance on policy and standards, training and education, and the science/technology of food safety.

Food Protection Services identifies and coordinates research into emerging and known food safety risks. Partnerships continue to be developed with federal and provincial food safety agencies, academia, and funding agencies to enhance the province's research capabilities.

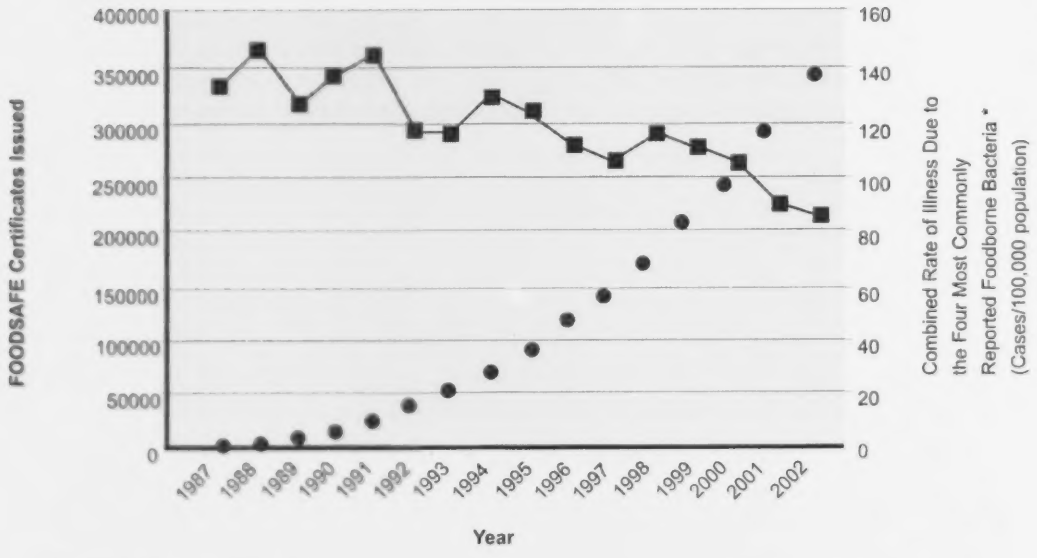
A significant proportion of foodborne illness occurs as a result of improper food handling practices by those who prepare food, either in food establishments or in the home. Foods Protection Services leads the FOODSAFE program, (which educates individuals working in food establishments) and participates in the national public education campaign FightBAC!

Food Protection Services act as the primary contact for emergency food recalls in British Columbia. This involves the dissemination of recall information to key provincial health agencies along with required actions and follow-up communiqu s as necessary. In this way contaminated food products are efficiently removed from the public domain.

In addition to the above consultative/support functions, Food Protection Services delivers food safety programs in dairy, meat and fish processing plants. While direct inspectional services are provided by Food Protection Services staff in dairy and fish processing plants, inspection services in provincially licenced abattoirs are provided by way of a contract with the Canadian Food Inspection Agency.

FOODSAFE Certificates

Food Protection Services Attempts to Reduce Illness Through Education and Regulation



Food Protection Services

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Through the application of evidence based public health policies, reduce the impact of food safety hazards on human health.

- ensure the public has access to reliable information that will assist them in making informed food safety decisions
- develop strategies based on scientific principles that will assist Health Authorities in implementing strategies that will minimize the risk of foodborne illness
- ensure that legislation, policies and standards are actively reviewed, and reflect current technology, practices and scientific knowledge
- ensure BC's food safety programs are equivalent to national food safety standards established under the Canadian Food Inspection System

Strategy:

- develop public information materials on safe food handling practices
- ensure food safety programs target the major causes/sources of foodborne illness
- recommend to the Ministry of Health Planning required changes to legislation, policies and standards
- develop and maintain British Columbia Food Codes

Food Protection Services Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Develop public information materials on food Safety	# of information materials developed
Conduct risk assessments, and develop strategies to minimize risk of foodborne illness	# of risk assessments, and strategies developed
Review legislation, policies and standards to ensure currency	#'s of legislation, policies and standards reviewed and updated
Ensure equivalency of food standards to national models	Participation in development of national models, and incorporation into BC's standards

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

- Reduce the incidence of conditions known to contribute to foodborne illness, and the unsafe processing of dairy, meat and fish products by:
- licencing/inspection of all provincially licenced dairy, meat and fish processing plants
- monitoring the safety of dairy, meat and fish products through sampling and analysis
- initiating legal action where necessary to ensure mitigation of unsafe practices and products
- ensure the effective recall of contaminated food products
- develop and deliver educational programs aimed at empowering the dairy, meat and fish industries to conduct self-inspection/safety programs
- maintain statistical information for the program

Strategies:

- evaluate applications and issue licences to provincial dairy, meat and fish plants as per statutory requirements
- inspect dairy, meat and fish plants to ensure compliance with regulation requirements
- ensure abatement of all critical hazards
- take legal action where necessary including detention of products, issuance of tickets, closures and revocation of licences, and laying charges
- submit and analyze samples for compliance with standards
- develop and deliver educational courses, conferences and printed food safety materials
- develop codes of good practices, HACCP, and GMP practices manuals
- act as a resource for the industry about food safety/science, safe plant operation and equipment
- maintain databases to provide statistical information on plant inspections, violation rates and critical hazards

Food Protection Services

Food Protection Services Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Licence and inspect all provincial dairy, fish and meat processing plants	Process applications within 14 days Dairy - 1 in-depth dairy inspection, plus average 3 other inspections per year Meat — as per federal/provincial agreement Fish — average of 3 inspections per year
Ensure correction of all critical hazard violations	Immediate correction, or within time specified
Investigate reports of unsafe practice/contaminated products	Investigations initiated within 24 hours of complaint

Food Protection Services Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Sample and analyze dairy products for compliance with food safety standards	# of samples tested and analyzed for compliance with food safety standards.
Develop and deliver education programs/ materials aimed at empowering the processing industries to conduct self-inspection/safety programs	# of programs/materials developed
Maintain statistical information on the safety status of processing plants in BC	Maintenance of data bases for mandated food processing industries Analyses of data, and implementation of strategies based on analyses

Goal Two:

Detect and Respond to New Disease Threats

Position Food Protection Services to control, influence and respond to changes in the food safety system.

Strategies:

- develop and maintain foodborne illness data which identifies critical factors such as the number of outbreaks, causes, foods of concern, and costs to the healthcare system
- develop and recommend innovative ways to achieve reductions in the incidence of foodborne illness
- initiate and participate on provincial/federal food safety management committees
- promote food safety as an essential component of the healthcare system
- establish working relationships with key federal food safety departments, and request/participate in food safety research initiatives
- act as the primary provincial contact for food emergencies such as recalls and terrorism events. Disseminate information to Health Authorities, coordinate response, and liaise with federal food safety authorities
- develop the province s legislation, policies and standards that will ensure currency of the province s food safety system
- draft responses to Minister s letters
- assist Health Authorities in responding to food safety issues from their Boards, and the public

Food Protection Services Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Develop data on the causes/incidence/cost of foodborne illness	Data base of food borne illnesses
Develop innovative approaches to achieve reductions in food borne illness	# of new food safety programs/strategies
Initiate/participate in provincial/federal food safety management committees	# of committees participating on
Act as primary provincial contact for food emergencies, recalls	# of food emergency events
Review and develop province's food safety legislation, policy and standards	# of legislation, policies and standards reviewed and developed
Draft Executive correspondence such as Minister's letters and briefing notes	# of Minister's letters and briefing notes

Food Protection Services

Goal Three:

Develop and Apply Advanced Informatics

Provide appropriate and timely support to the Ministry of Health Planning and Health Authorities on food safety information and monitoring systems.

Strategies:

- develop food protection website and maintain with current food safety information
- develop innovative food safety assessment systems.
- review data to assess trends, and develop intervention strategies
- participate in provincial and national initiatives to enhance food safety data/reporting systems

Food Protection Services Objectives and Performance Measures Related to Goal 3

2003 — 04 Objectives	Performance Measure
Assist in, and maintain Food Protection Services' web site	Development of web site
Develop food safety assessment systems	# of systems modified/developed
Participate in provincial and national data/reporting system initiatives	# of provincial and national initiatives
Advise Health Authorities on new/innovative information and monitoring systems	Communication with Health Authorities regarding information and monitoring systems

Goal Four:

Create Knowledge Through Applied Research and Innovation

Establish an environment which encourages research projects, and which contribute to evidence based policy development.

Strategies:

- develop research collaborations with stakeholders, and obtain external funding in applied food safety research
- develop partnerships and collaborations internally and externally to identify priorities and seek funding sources

Food Protection Services Objectives and Performance Measures Related to Goal 4

2003 — 04 Objectives	Performance Measure
Identify at least 2 key food safety research needs per year	# of reviews completed/year
Undertake or facilitate at least 1 research initiative/year	# research initiatives/year
Establish at least one new link with the research community	# of links established/year

Goal Five:

Advance Public Health Excellence

Promote and develop the skills of highly qualified persons to sustain and support progressive food safety services throughout the province.

Strategies:

- develop and provide food safety training courses to health authority staff
- develop/provide current food safety information materials to Health Authorities
- conduct literature searches, obtain scientific information on issues of concern to Health Authority staff
- develop/maintain a listing of food protection information sources (e.g. journals, books, websites)
- maintain expertise as a scientific food safety resource for the Health Authorities, other government agencies, the food industry and the public

Food Protection Services Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
Develop/provide food safety training courses to Health Authority staff	# of training courses delivered Course/event evaluations
Develop food safety information materials for Health Authorities	# of materials developed
Conduct literature searches, obtain scientific information for Health Authorities	# of searches, scientific information provided
Develop information sources	# of sources identified
Staff attendance at seminars, conferences on food safety	# of courses/conferences attended

Food Protection Services

Goal Six:

Provide Leadership and Create Partnerships

Provide leadership and create strategies to facilitate development of an integrated food safety system for British Columbia.

Strategies:

- represent the province in the development of the Canadian Food Inspection System
- represent the province on federal/provincial/territorial food safety advisory/policy committees
- facilitate the formation of provincial food safety advisory committee/councils, and bring together stakeholder groups to discuss and make recommendations concerning food safety issues
- develop and maintain communication links with Health Authorities and external stakeholders to ensure currency of legislation, policy and standards
- establish communication links with universities, technical schools, senior government departments and food specialists
- represent the province to ensure the continued management and delivery of the FOODSAFE program

Food Protection Services Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Represent the Province on federal/provincial/territorial committee to develop a Blueprint for the Canadian Food Inspection System	Participation on FPT committee(s)
Develop/Chair provincial food safety committees/ councils	# of committees formed/chaired
Develop communication links with Health Authorities and other external stakeholders to ensure currency of legislation, policy and standards	# of linkages
Establish communication links with scientific and technical resources	# of linkages
Ensure the currency/viability of FOODSAFE program, and act as a resource for Health Authorities	Continued recognition and support of FOODSAFE program

Radiation Protection Services

Brian Phillips, Director, Radiation Services

As one of three programs to be transferred to BCCDC, effective April 1, 2002, the role of the Radiation Protection Services (RPS) is to provide programs and services to help protect British Columbians from radiation hazards. Through protection, prevention and health promotion initiatives, RPS strives to help control and reduce the risks of radiation-induced diseases and injuries. Its operates four programs to address the key areas where radiation hazards risks are found.

The Medical X-ray Program works closely with the health professions that perform diagnostic radiology procedures to ensure patients, staff and the public are safeguarded. Emphasis is placed on ensuring patient exposures are controlled while obtaining the necessary diagnostic information. New computer controlled X-ray systems and the introduction of digital imaging technology presents new challenges for ensuring that unnecessary increases in exposure do not occur.

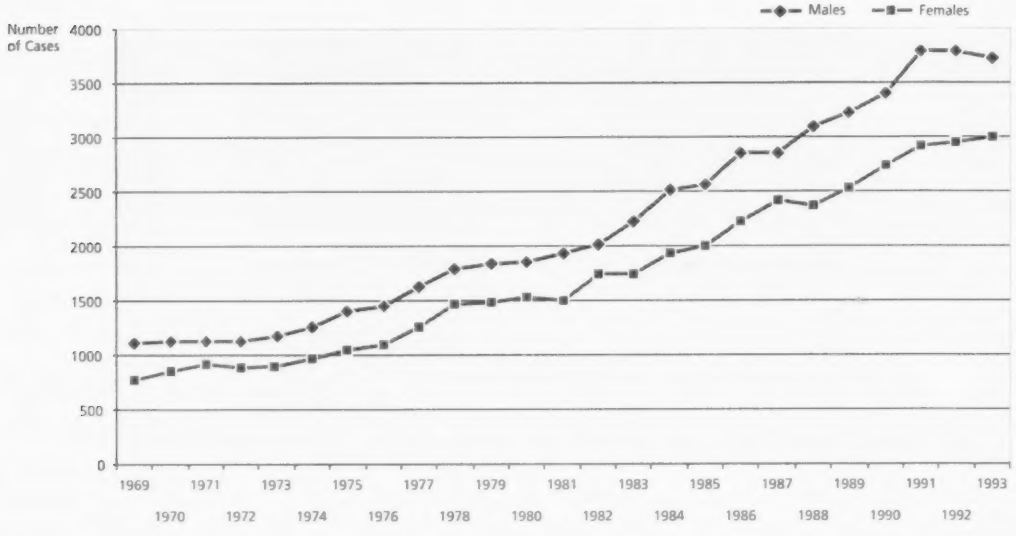
The Environmental Radiation and Laboratory Measurements Program focuses on naturally occurring radioactive materials and special radiation facilities located around the province. Concerns include radon gas in homes, schools and other buildings; radioactivity in well water and other supplies; and enhanced radioactivity arising through some industrial processes. The program conducts environmental monitoring at several sites in BC, including the naval bases where foreign nuclear powered vessels make visits. Analyses for radioactivity content are made on food, water and selected samples.

Radiation Protection Services

The non-ionizing radiation and non-medical X-ray program addresses concerns involving ultraviolet radiation; lasers, electromagnetic fields from telecommunication, industrial equipment and electrical distribution systems. A major initiative is supporting the implementation of a provincial sun awareness and skin cancer prevention strategy, to help reduce the increasing incidence of skin cancer in BC (see attached chart on skin cancer incidence). This program works closely with the Workers Compensation Board of BC concerning workplace hazards from industrial x-ray units and non-ionizing devices.

The fourth program deals with nuclear emergency preparedness and radiation incident/spill response. RPS is on call to assist emergency first line responders to deal with events such as transportation accidents involving vehicles carry radioactive sources. It works closely with the BC Provincial Emergency Program to maintain nuclear emergency response arrangements for any events which could impact British Columbia.

Non-Melanoma Skin Cancer Cases Diagnosed in BC



***Data courtesy of the BC Cancer Agency**

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Through the application of evidence based public health policies, reduce the adverse impact of environmental hazards on human health

Sub Goal A

Control and limit exposure from diagnostic radiology procedures, from naturally occurring radioactive materials and nuclear facilities; from x-ray devices used in workplaces, research and education that fall under provincial jurisdiction

Strategy

- Establish and deliver effective protection, prevention and promotion programs for the medical, dental, chiropractic and veterinary diagnostic x-ray fields
- Extend the capability of the environmental monitoring program for routine services and emergency response needs
- Assist in identification and management of NORM exposures and waste materials
- Support the development and implementation of non-medical x-ray safety and health initiatives in industrial, research and teaching settings, in cooperation with the Workers Compensation Board, other agencies and responsible users

Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Health Professions participation in the medical x-ray Partnership Program	Signed agreements with 5 Colleges, QMPs developed and surveys started by Mar 2004
Identify new priorities and initiate revised procedures for routine and emergency laboratory measurements and environmental monitoring	New activities and sites identified; monitoring Procedures established and testing activated
All NORM issues are successfully addressed through exposure control and waste management processes	# of issues successfully addressed
Scope out the requirements for investigating NORM in BC drinking water supplies	Study scope prepared Sites for preliminary sampling identified
Protocols will be developed and accepted by the responsible agency to address non-medical x-ray hazards in workplaces and education facilities	Protocols accepted within 6 months of development. On-going technical support and advice provided

Radiation Protection Services

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Through the application of evidence-based health policies, reduce the adverse impact of environmental hazards on human health

Sub Goal B

Prevent damage to eyes, skin and other organs and tissues that can result from excessive exposures to high power laser and other optical radiation and to electromagnetic fields emitted from electrically energized devices

Strategy

- Support the development and delivery of environmental health programs with regional health authorities concerning personal services facilities, such as tanning salons and laser skin treatments by:
- Ensuring protection is provided for all persons at high power (Class 3b and 4) laser facilities
- Providing environmental health officers and other inspectors with sufficient technical resources and advice to assist in their inspections to ensure applicable standards for operating, specified in the personal services regulations are met
- Ensure that high power radio and other transmitting systems do not expose the public and workers in excess of standards
- Conduct field measurements; provide timely and current information on the hazards of and the protection from various non-ionizing radiation sources

Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Facilitate training for EHO's through development of laser safety guides and training, based on RPS hazard assessments from various laser applications	# of inspectors trained, training courses arranged, and safety guides developed for regulatory agencies
Health Authorities supported to ensure tanning salon facilities conform to legislation and guidelines	Materials for Health Authorities (HAs) updated annually and distributed within one week of request New material supplied when developed improvement in tanning facility compliance rates
Existing and new radio systems or other high power RF devices assessed for conformity with applicable standards and corrective action taken if needed	# of systems assessed # of advisory documents produced Successful remediation rate, where required
Radiation Issue Notes are developed and distributed within two weeks of a non-ionizing radiation issue being assessed	
RIN Information posted to RPS web site within 4 weeks	% of RIN issues communicated within time targets

Goal One:

Prevent, Control and Eliminate disease

Through the application of evidence-based public health policies, reduce the adverse impact of environmental hazards on human health

Sub Goal C

Reduce skin cancer incidence and mortality associated with exposure to the sun's ultraviolet radiation and other UV sources

Strategy

- Promote the implementation of the provincial Sun Awareness and Skin Cancer Prevention Strategy, by coordinating and facilitating external programs and initiatives through a Provincial Action Committee
- Re-establish a data reporting process on skin cancer incidence and mortality, to identify current disease trends for British Columbia
- Ensure up to date information is made available for health authority staff who are actively involved in organizing annual sun awareness events
- Liaise with federal and other health and environment agencies regarding their programs and initiatives, to take advantage of their resources and to ensure there is avoidance of overlap and duplication of activities

Objectives and Performance Measures Related to Goal 1

2003 — 04 Objectives	Performance Measure
Slow the growth rate of skin cancer incidence in order to achieve a zero growth rate by year 2005	Year over year incidence rate of new skin cancers
Support Provincial activities that are based on fulfilling the 'settings' identified in the Provincial Sun Awareness and Skin Cancer Prevention Strategy	# of 'settings' activities involved in Strategy follow-through rate in demonstration settings
Through arrangements with BC Cancer Agency obtain timely and comprehensive epidemiological information about skin cancer incidence and mortality	Skin cancer incidence and mortality rate data collected and published by BC Cancer Agency
Assist health authorities to carry our local/regional sun awareness events. Provide resource information to public health nursing programs for distribution during annual campaigns organized with other key agencies	# of events in each health authority Materials made available to Health Authorities in time for annual events
Identify and promote Best Practices for sun awareness and protection against UV	# of new Best Practice or promising practices identified in the literature, through federal/provincial collaboration, or international conference and adopted for use

Radiation Protection Services

Goal Two:

Detect and Respond to New Disease Threats

Develop institutional mechanisms to rapidly recognizing new hazards, to investigate their occurrence and initiate protective actions

Strategy

- Maintain expertise in the program staff charged with the responsibility to identify occurrences and new threats arising within BC, Canada and around the world
- Maintain an on-going awareness of developments in the scientific and technical disciplines concerning new hazards and changes to existing ones
- Establish reporting mechanisms that provide RPS and other key agencies with early notification of events resulting in or having the potential to cause injury, illness or significant overexposure
- Establish an incident reporting system to identify and track incidents where overexposures and injuries occur
- Issue hazard alerts to key persons and organizations when a potential or actual serious health risk exists

Objectives and Performance Measures Related to Goal 2

2003 — 04 Objectives	Performance Measure
Incident reporting arrangements developed with stakeholders for key program areas by June 2003	# of incident reporting protocols established by June 2003
Emerging issues identified and incorporated into program area surveillance and reporting	# of issues identified and incorporated into surveillance protocols
Hazard alerts issued within 24 hours of the notification of a serious risk and within 72 hours for minor items	Time between hazard recognition and alert communication
Health emergency response arrangements to address CBRN incidents developed in conjunction with HA's and other agencies	Project plan signed off and implemented to develop public health resource aid for the healthcare industry

Goal Three:

Develop and Apply Advanced Information

Develop and apply advanced surveillance systems for alert and performance monitoring purposes in public health

Strategy

- Collect medical x-ray partnership program inspection data for review
- Establish on-line linkage to National Dose Registry of Canada
- Maintain a current RPS web site, with program information and links
- Work closely with BCCDC Information Management group to access support resources; work with partners to complete projects currently under development

Objectives and Performance Measures Related to Goal 3

2003 — 04 Objectives	Performance Measure
Completion of the XRW 4.1 and XSMS software programs for the x-ray partnership program	Software adopted by x-ray partnership groups Inspection data transfer process initiated
Develop project plan and agreement with Health Canada to establish a fully operational link to the National Dose Registry by 2004	Project plan sign off by Health Canada and BCCDC
Radiation protection component created on BCCDC web site and routinely updated by Radiation Protection Services	# of hits on the RPS subcomponent of BCCDC web site

Radiation Protection Services

Goal Five:

Create Knowledge Through Applied Research and Innovation

Discover research findings (of international significance) that contribute to evidence-based policy and practice resulting in improved health for British Columbians

Through collaboration in research, establish an environment which fosters innovation and enhances the science for radiation protection

Strategy

- Continuous evaluation of the program methodologies utilized by Radiation Protection
- Develop close partnerships with research organizations and with stakeholders having a shared interest in research outcomes
- Promote investment of material and human resources in British Columbia
- Undertake internal reviews, seek stakeholder input, and compare performance with other jurisdictions

Objectives and Performance Measures Related to Goal 5

2003 — 04 Objectives	Performance Measure
One review completed in each program area per year	# of reviews completed per year
Each program area undertakes at least one research initiative per year	# of research initiatives per year
Establish at least one new link with the local research community	# of links established per year

Goal Six:

Advance Public Health Excellence

Provide provincial/national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada

Foster the role of Radiation Protection Services as the lead agency for radiation protection in British Columbia and as a key resource for Canada

Strategy

- Represent BC at the annual meetings of the Federal-Provincial-Territorial Radiation Protection Committee and other federal-provincial meetings concerning radiation protection and nuclear emergency preparedness arrangements affecting BC
- Make contact and consult regularly with key organizations concerning RPS business planning and its operational activities for each of the program areas, to achieve effective outcomes in service delivery
- Host or co-organize national, regional or local conferences and workshops
- Develop and enhance alliances and partnerships with various organizations, including: universities and colleges; regional health authorities; agencies in the Provincial Health Services Authority; WCB; health professions' Colleges/Associations; national organizations such as the Canadian Cancer Society and the Canadian Dermatology Association; Canadian Association of Radiologists and international agencies in the field of radiation protection

Objectives and Performance Measures Related to Goal 6

2003 — 04 Objectives	Performance Measure
Attend the annual Federal Provincial-Territorial meeting; chair and participate in sub-committees; develop business plans and initiatives	# of FPT meetings attended and issues addressed
Organize and host at least one conference or training event	# of events hosted
Consult with Health Authorities, their agencies and other stakeholders on annual business plan and performance objectives	Participation rate re-solicited planning input
Support the establishment of a centre for environmental health within BCCDC, involving RPS as an interlaced program	Functional model for CEH approved; programs and services operationalized. RPS office and laboratory relocated into BCCDC main building

Drug and Poison Information Centre

Derek Dawes, Drug and Poison Information Centre

The Drug and Poison Information Centre (DPIC) serves as the provinces' drug information centre for health care providers and as the poison control centre for both the general public and health professionals. Its primary mandate is to develop and implement centralized services to assist health professionals in providing optimal levels of drug therapy and poison management in the province.

In addition to the core services mentioned above, DPIC is active in promoting prevention programs aimed at reducing unintentional injuries due to poisoning and adverse effects of drug therapy. Programs are aimed at both the public and the providers of health care throughout B.C.

DPIC is a division of the University of British Columbia, Faculty of Pharmaceutical Sciences and as such has a strong role in educating undergraduate and postgraduate pharmacy students, emergency physicians and nursing students. Emphasis is placed on developing skills which promote effective and evidence-based drug therapy and management of the poisoned patient.

Surveillance of patterns and trends in drug usage and exposures to toxic agents is a significant component of DPIC's activities. Trend analysis is used to generate signals which may indicate inappropriate drug therapy or potential outbreaks of product related disease.

Findings are communicated to public health officials, licensing agencies for pharmacists and physicians and the National Adverse Drug Reaction Reporting Centre at Health Canada.

DPIC publishes two textbooks in both hard copy and electronic versions. The Drug Information Reference (DIR) focuses on concise, relevant and evidence-based drug information and is directed towards health care providers. The Poison Management Manual is used extensively within B.C. and Canada as a reference source for managing poisoned patients.

Goal One:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Sub Goal A

Through the application of evidence based public health policies, eliminate endemic transmission of communicable diseases, such as - diphtheria, measles, mumps, polio, rubella, Haemophilus influenzae type b (Hib), hepatitis B and syphilis

Sub Goal B

Through the application of evidence based public health policies, achieve effective control for diseases such as tuberculosis, HIV, hepatitis A and C, chlamydia, gonorrhea, influenza and pertussis

Sub Goal C

Through the application of evidence based public health policies, reduce the adverse impact of environmental hazards on human health

Drug and Poison Information Objectives Related to Goals 1 A,B and C

2003 — 04 Objectives	Performance Measure
Develop, in conjunction with Food Protection, Radiation Protection and Environmental Toxicology, the B.C. Centre for Environmental Health for the purpose of monitoring, assessing and preventing environmental hazards to human health	Input into business plan

Drug and Poison Information Centre

Goal Two:

Prevent, Control and Eliminate Communicable and Environmental Diseases

Enhance and apply mechanisms to rapidly recognize and respond to emerging microbial and non-microbial disease threats to human health, including water and food borne disease outbreaks, pandemic influenza, Bioterrorism, SARS, West Nile and Norovirus, and other new emergent infectious disease agents

Drug and Poison Information Objectives Related to Goals 2

2003 — 04 Objectives	Performance Measure
Assess the potential for the ProdTox application as a surveillance method for detecting product related disease and injury	Obtain all documentation and software specifications from Health Canada. Work with Information Management to perform testing and modifications required to reactivate the programs. Develop the business case for roll out if performance assessment is positive

Goal Three:

Develop and Apply Advanced Informatics

Develop and apply advanced surveillance systems for alert and performance monitoring purposes in public health

Drug and Poison Information Objectives Related to Goals 3

2003 — 04 Objectives	Performance Measure
Assess the potential for the ProdTox application as a surveillance method for detecting product related disease and injury	Obtain all documentation and software specifications from Health Canada. Work with Information Management to perform testing and modifications required to reactivate the programs. Develop the business case for roll out if performance assessment is positive

Goal Four:

Create Knowledge Through Applied Research and Innovation

Discover research findings of international significance that contribute to evidence-based policy and practice that results in improved health for British Columbians

Attract, develop and retain highly qualified persons to sustain and support state-of-the-art public health services throughout the province

Drug and Poison Information Objectives Related to Goals 4

2003 — 04 Objectives	Performance Measure
Complete and publish the results of the fomepizole antidote review	Present the results of the review to BCCDC Directors. Publish the results in a peer reviewed journal in the spring of 2004

Goal Five:

Provide Leadership and Create Partnerships

Provide provincial / national leadership and create alliances in order to facilitate the development of an effective integrated public health system for British Columbia and Canada

Drug and Poison Information Objectives Related to Goals 5

2003 — 04 Objectives	Performance Measure
In partnership with the Government of the Yukon Territory, provide Drug and Poison Information services to the residents and health providers of the Yukon	Develop and activate a Memorandum of Agreement with the Yukon Territory
In partnership with the Interior Health Authority (IHA), provide drug information services and products, to allow the revamping of the pharmacy systems in the IHA	Develop and activate a Memorandum of Agreement with the IHA
In partnership with the BC Injury Prevention Research Unit and the B.C. Pharmacy Association, develop and implement a prevention program aimed at reducing the incidence of medication induced falls	Program developed and implemented in the autumn of 2003.

2002/2003 A Year in Review

2002/2003 A Year in Review

In 2002-2003 fiscal year BCCDC initiated an annual Performance Planning Process with quarterly divisional progress reports. The following summarizes the results of Year 2002-2003

Goal One:

Eliminate and Control communicable Diseases

Sub goal

Eliminate Communicable Diseases

Specific disease and detection targets and related immunization and laboratory targets were met, and progress was made, in achieving the long term goal of disease elimination for a number of communicable diseases. In particular, new infections due to acute Hepatitis B among children has declined. The new acellular pertussis vaccine appears to be improving control of the whooping cough. Social Network case finding methodology was successfully implemented resulting in improved case finding. New disease patterns have revealed a growth in syphilis amongst gay men which will need to be addressed through increased prevention efforts.

Sub goal

Control of Communicable Diseases

Specific disease and detection targets were met, hard to reach high risk groups continue to present a challenge, for immunization case finding and treatment. Significant progress was made in developing hepatitis pilot projects in conjunction with regional health authorities to integrate prevention and care management practices. As well, negotiations with the federal government have resulted in a transfer of Tuberculosis screening for immigrants and refugees to BCCDC which should improve case finding, prevention, and treatment. New treatment improvements for hepatitis C have resulted in increased pressure for sophisticated laboratory testing.

Goal Two:

Detect and Respond to New Disease Threats

The new viral disease of SARS dominated Canada and the world over the past year. BCCDC's preparation for bioterrorism and pandemic flu provided a solid foundation for early detection and response to SARS. Other challenges met included; preparation for West Nile Virus, Bioterrorism threats associated with anthrax, and food borne disease outbreaks related to cheese processing and food handling. Challenges remain in the area of re-emergence of SARS and other respiratory viruses, the need for vaccine and advanced informatics for early outbreak detection.

Goal Three:

Advanced Informatics

The provincial Public Health Information System (PHIS) was successfully converted to a web based system more easily utilized by Health Authorities. The Outbreak Detection Module was introduced. The TB Module has experienced data conversion challenges and did not meet current fiscal year start date target. Collaborative efforts with the Health Authorities were strengthened to facilitate joint management and ongoing development of PHIS. Information capacity, in support of the public health function, remains a critical challenge and brought to priority attention in Canada because of SARS.

Goal Four:

Foster Applied Research and Innovation

BCCDC, through its research affiliate UBC-CDC experienced continued recognition and financial support for research. $580,000 were received in new CIHR funding, bringing to a total over $5,000,000 for research currently underway at BCCDC. As well, medical staff have maintained teaching responsibilities and a number of graduate and post-graduate students are engaged.

Goal Five:

Maintain Public Health Excellence

Radiation Protection Services, Food Protection Services, and Drug and Poison Information Centre were successfully transferred to BCCDC. Provincial compensation plan adopted for physicians significantly strengthened recruitment and retention for medical staff. There continues to be a problem with recruitment and retention of research support, scientific and administrative support staff at BCCDC. Staff survey completed demonstrated a high degree of job satisfaction and team performance but reinforced the need for a continuing priority for staff development and training. A variety of successful outreach training initiatives were carried out by BCCDC staff in support of the Health Authorities and patients, families and communities concerned with public health issues. Teaching and graduate student training continued as a successful and mutually rewarding experience for BCCDC.

Goal Six :

Provide Leadership and Support Partnerships

BCCDC's leadership in public health, especially in relation to the SARS and Bioterrorism crisis, has resulted in numerous opportunities for national leadership. BCCDC is emerging as a model public health resource which is likely to form the basis of national and provincial developments over the years ahead. BCCDC continues to make a strong contribution to the Ministry of Health Planning and Provincial Health Officer's process to define public health core functions and develop a new Health Act. A five year CIDA Agreement has been finalized which will support BCCDC's ongoing work in Viet Nam, providing STD/HIV expertise, consistent with the International Health interests of PHSA.

(2002/2003) Fiscal Management

Despite service pressures in Laboratory and inflationary costs in biologicals BCCDC managed expenditures to meet 2002/2003 budget requirements.

UBC CDC Research Report

BCCDC is committed to working with the Health Authorities, research institutions, and public and private sector partners to strengthen British Columbia's ability to confront new disease challenges.

UBC CDC 2003 Research Report

The CIHR's blueprint for investing in Canada's future asserts two bold facts:

- Canada's health system is the country's largest knowledge based industry with expenditures in excess of $110 billion annually
- Transformation of the health system into an evidence-based enterprise is research-driven

These facts show the importance of health systems to our national economy and put research at front and center. This is true for health systems such as the PHSA and the BCCDC where research translates into safe, effective and affordable interventions that treat disease, promote health and prevent illness. Research should be considered a core function in public health, something easily over looked and when neglected erodes the very foundation of evidence-based public health programs. Twinning of research and public health characterized the recent experience responding to SARS. Science - a system for solving problems resulting in innovation - was the organizing principle for the epidemic response. In fact, epidemic investigation and response to a new emerging disease is simply fast-paced research. Thus, having a strong commitment to, and resources for research is a keystone to mitigating the impact of emerging diseases and developing the new Public Health tools to detect and prevent disease.

A strong science foundation has required an explicit commitment to research by the BCCDC, the recruitment of scientific staff, partnership with critical scientific collaborators and adequate funding to conduct research. BCCDC has an explicit commitment to research reflected both in its mission statement and within its corporate goals. Thus research enjoys a secure presence within the Centre.

Francis Bacon once commented that research comes in two forms: *lucifera*, research which sheds light and *fructifera*, research which yields fruit. Overtime this has resulted in defining research as pure (or basic) and applied. Applied research finds a natural home within Public Health, which has a constant craving for new and better means of preventing disease. Basic research is increasingly important to public health, in part, because of the new tools and knowledge it brings and, in part, because public health problems are a unique arena in which new processes can be discovered. As an example, emerging pathogens are "experiments of nature" which can say much about the ecological and genomic origins of infectious diseases. Organizations like the BCCDC are specially poised to investigate nature's experiments and thereby shed light on fundamental processes. The characterization of the SARS coronavirus genome is a superb example of such science at work. The genome said something about where this agent came from and gave us information to make new diagnostic tests. Thus research at BCCDC, while predominantly of the *fructifera*-type, also values *lucifera* work.

Given that the Centre has only 16 medical and scientific staff our approach to research necessarily involves forming collaboratives as well as defining our internal strengths. Collaborative partnerships are very active with several groups including the Centre for Coastal Health (Dr. C. Stephens), the Vaccine Evaluation Centre (Dr. D. Schiefle), the Pathogenomics Research Group (Dr. F. Brinkman), and the BCCA Genome Sciences Centre (Dr M. Marra) among others. As emerging to everyone's delight, it is also apparent that PHSA, as an organization creates natural alliances such as those among

The BCCA, Children's and Women's and the BCCDC which facilitate research and innovation. And of course UBC is our principal academic affiliate. Through partnerships the scientific capability of the Centre has much expanded. Undoubtedly, partnerships will continue to be the way to build research capacity at the Centre.

Within the Centre we have also undertaken both an internal examination (through retreats) and a systematic analysis (through a CIHR sponsored assessment of research Needs, Gaps and Opportunities for control of infectious diseases) in order to identify those areas of research, which are our unique strengths. Reports have been widely circulated and are electronically available on the BCCDC website at *http://www.bccdc.org* and *http://www.cdc.ubc.ca* that describe the results of these analyses.

A remarkable convergence occurred in that both processes identified overlapping research themes that Centre scientists felt they had unique strength in and which the external public health community saw as providing the information they needed.

The themes are shown in the table and reveal the full spectrum of research from applied (e.g. translational and evidence-based policy research) to basic (e.g. Genomics and Immunology). Also shown in the tables are some examples of current research projects undertaken by Centre faculty.

UBC CDC 2003 Research Report

Research Themes and Examples

NGOA	***UBC CDC***	***Examples***
Efficacy / Cost-Benefits / Best Practice Research	Evaluation of Population level interventions	• Syphilis mass treatment • Active TB treatment trial • Latent TB treatment trial
Disease Pattern Research	Social and environmental determinants of disease Mathematical Modeling	• Social network theory and STD Control • Climate change and emerging infectious diseases • Global health research and STD HIV and TB control • Chronic infectious disease epidemiology in *•Heart disease* *•Infertility* *•Cancer* *•Hepatitis C* *•Syphilis* *•Influenza* *•SARS*
Emerging infectious disease research	Surveillance and Outbreak investigation	• Cryptococcus • Norwalk • Listeriao • SARS coronavirus

Research Themes and Examples

NGOA	*UBC CDC*	*Examples*
Immunology and Vaccine research		· Immunoepidemiology of VPDs · Chlamydia vaccine discovery · SAVI
Disease specific research		· Hepatitis B and C · Herpes · Chlamydia · SARS
Social marketing / Target messages research		· Knowledge, attitudes and beliefs regarding immunization
Enterics Research		· Cryptoporidiumo · Giardiao · Yersiniao · Norovirus
Knowledge translation research	Evidence-based Public Health policy	· New vaccine implementation policy · Safe-injection sites · Drinking water action plan
Genomics	Molecular typing of pathogens and molecular epidemiology	· Chaperonin-based typing · Cryptococcus genome sequencing · Chlamydia genome typing · DNA arrays and pathogen signatures · Genome sequencing of outbreak pathogens (e.g. SARS CoV)

BCCDC 2003 Research Report

The Centre has been incredibly successful in terms of research productivity over the past year. Currently, over 5 million dollars in grants and contracts are held by Centre staff, fifty publications have appeared in peer-reviewed journals and 27 manuscripts are under review. Publications are appearing in the highest impact journals including the New England Journal of Medicine, Lancet and Science.

Success at this level is entirely the success of individuals and it is to the 16 faculty and staff that kudos are extended. Congratulations to all!

It is even more important now to secure an infrastructure to support science at the Centre. A major challenge for the coming year will be to get the important infrastructure in place in order to capitalize on the new public and private partnerships that are here. We need to develop technology transfer, intellectual property and business plans. It is apparent that while we build the scientific superstructure, we also need to get our administrative and management infrastructure in order.

In closing, I note that the coming year will see an external review of the UBC CDC and the effectiveness of my leadership at the helm of this venture. The purpose of the review is to assess the quality, strength, programs and operations of the Centre with the view of informing long-range planning. Dr. Paul Gully, Senior Director, General Health Canada and Dr. Thomas Marrie, Professor and Chair in Medicine, University of Alberta will be leading the review and visiting the Centre Monday, October 27th and Tuesday, October 28th, 2003. Keep your calendars open for these dates and give your candid input.

Thanks again for a terrific year. I look forward to even more success in the upcoming year.

Dr. R C Brunham
Director, Medical and Academic Affairs
Director, UBC/CDC
July 2003

Corporate Information

Corporate Information

BCCDC Executive

Ron Zapp, Provincial Executive Director

Dr. Bob Brunham, Director, Medical & Academic Affairs UBC/CDC

Larry Copeland, Director, Food Protection Services

Dr. Ray Copes, Director, Environmental Health

Brian Copley, Acting Director, Operations

Derek Dawes, Drug & Poison Information Centre

Dr. Kevin Elwood, Director, TB Control

Sharon deLisser, Manager, Administration

Layton Engwer, Director, Information Management

Dr. Judy Isaac-Renton, Director, Laboratory Services

Bob Kenward, Manager, Human Resources

Dr. Mel Krajden, Director, Hepatitis Services

Dr. Fawziah Marra, Director, Pharmacy Services

Sue Murphy, Director, Finance & Resource Management

Dr. David Patrick, Director, Epidemiology Services

Brian Phillips, Director, Radiation Protection Services

Dr. Michael Rekart, Director, STD/AIDS Control

Head Office / Facilities

BC Centre for Disease Control
655 West 12th Avenue
Vancouver, BC
Canada V5Z 4R4
Tel: (604) 660-0584, Fax: (604) 660-6066
Web: www.BCCDC.org

BCCDC Administration
Tel: (604) 660-0584, Fax (604) 660-6066

Epidemiology
Tel: (604) 660-5693, Fax: (604) 660-0197

Hepatitis Services
Tel: (604) 660-1676, Fax: (604) 660-2094

Information Management
Tel: (604) 660-6777, Fax: (604) 775-1566

Laboratory Services
Tel: (604) 660-6030, Fax: (604) 660-6073

Result Line
Tel: (604) 660-5100, Fax: (604) 660-2041

Vaccine Pharmacy Services
Tel: (604) 660-6000, Fax: (604) 775-1566

Sexually Transmitted Disease Clinic Administration
Tel: (604) 660-7484, Fax: (604) 775-0808

Tuberculosis Clinic — Vancouver
Tel: (604) 660-6108, Fax: (604) 660-1950

Tuberculosis Administration — Vancouver
Tel: (604) 660-6100, Fax: (604) 660-1950

Tuberculosis Clinic — New Westminster
St. Mary's Hospital
80 St. Mary's Street
New Westminster BC V3L 1H6
Tel: (604) 660-8830, Fax: (604) 775-1610

Food Protection Services
210-4940 Canada Way
Burnaby BC V5G 4K6
Tel: (604) 660-5068, Fax: (604) 660-0697

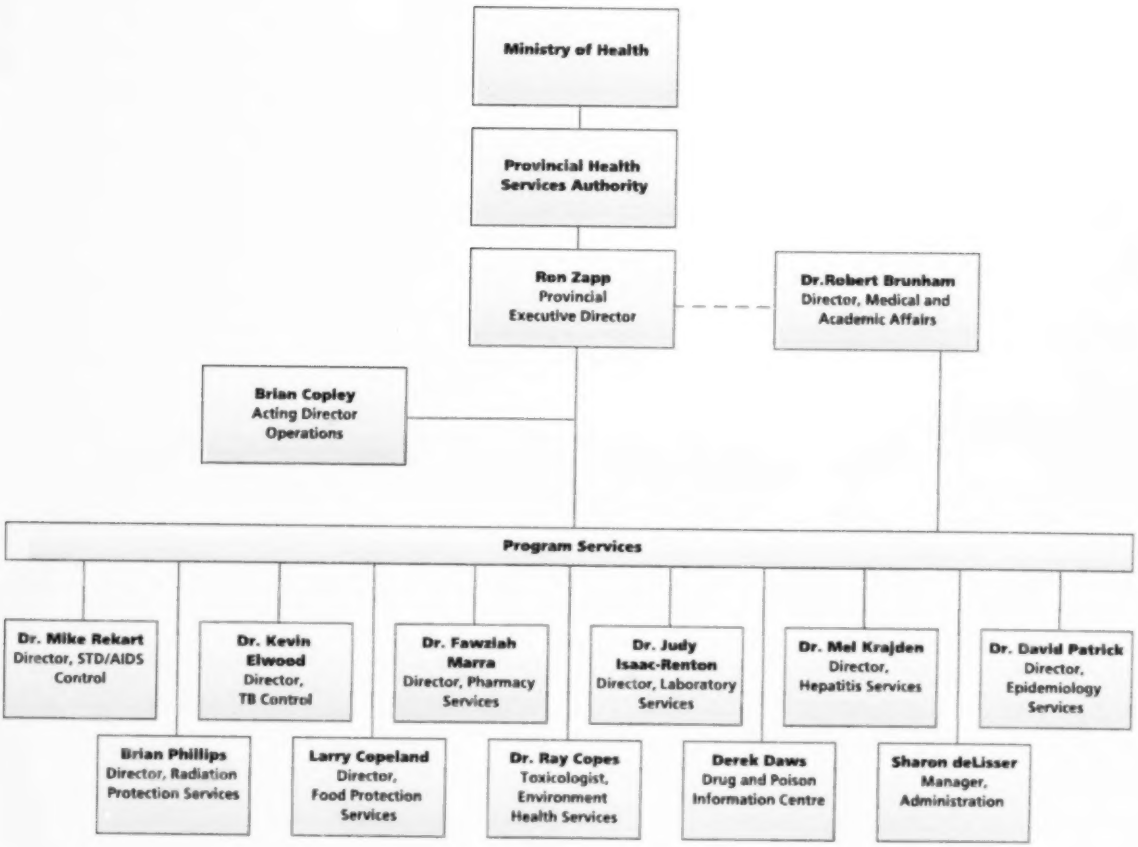
Radiation Protection Services
210-4940 Canada Way
Burnaby BC V5G 4K6
Tel: (604) 660-6633, Fax: (604) 660-0697

Drug & Poison Information Centre
1500 — 1081 Burrard Street
Vancouver BC V6Z 1Y6
Tel: (604) 682-2344, Fax: (604) 806-8262

Organization

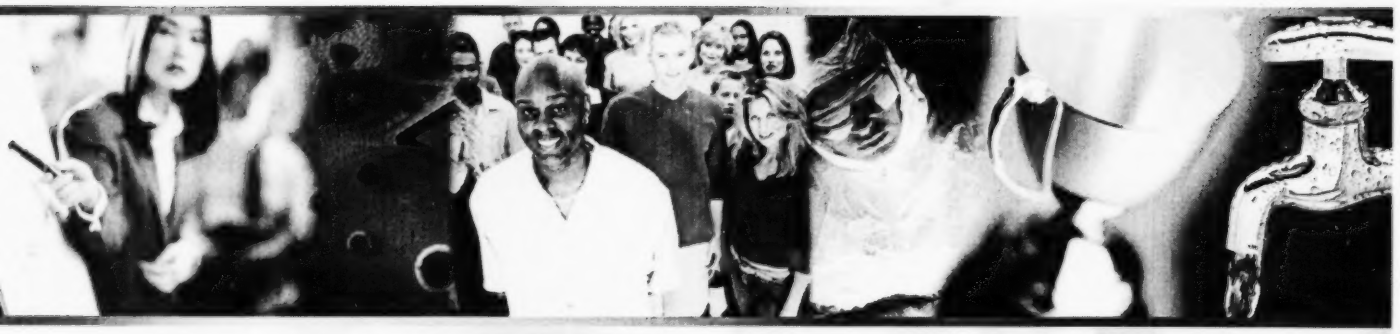
We respect and support each other. The rights and needs of each one of us are important to all of us. We all have the right to be heard in the decisions that affect us.

BCCDC Management Team



BC Centre for Disease Control
AN AGENCY OF THE PROVINCIAL HEALTH SERVICES AUTHORITY

655 West 12th Avenue
Vancouver, BC
Canada V5Z 4R4
tel: (604) 660-0584
fax: (604) 660-6066
web: www.BCCDC.org



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